Kentucky Retirement Systems Pension Administration Benchmarking Report

excludes Investments & Healthcare (for fiscal year 2015 – July 1, 2014 through June 30, 2015)





How do your peers use CEM's pension administration benchmarking service?

- Measure and manage costs. Understand the factors influencing cost with a detailed peer analysis of your:
 - Staff costs
 - Transaction volumes
 - Productivity
- Measure and manage service. An analysis of over 120 key performance metrics that compares:
 - Your service levels relative to your peers
 - Service areas to improve or reduce
- Gain insights into current research on pension administration best practices and trends through CEM's *Insights*. Research publications in 2016 will review trends in pension funds usage of social media and transaction volumes.
- Network with your peers at CEM's annual Global Pension Administration Conference to share best practices in pension administration.
- Access to CEM's online peer network for research and current issues in pension administration.
- Benchmarking cost and service performance is critical because "What gets measured, gets managed".

Kentucky Retirement Systems

72 leading global pension systems participate in the benchmarking service.

Participants			
United States		<u>Canada</u>	Australia*
Arizona SRS	TRS Illinois	APS	BUSS(Q)
CalPERS	TRS Louisiana	BC Pension Corporation	CBUS
CalSTRS	TRS of Texas	Defence Canada	First State Super
Colorado PERA	Utah RS	FPSPP	HESTA
Delaware PERS	Virginia RS	HOOPP	QSuper
Florida RS	Washington State DRS	LAPP	REST
Idaho PERS	Wisconsin DETF	OMERS	SunSuper
Illinois MRF		Ontario Pension Board	VicSuper
Indiana PRS		Ontario Teachers	
Iowa PERS	The Netherlands	OPTrust	
Kentucky RS	ABN Amro Pensioenfonds	RCMP	United Kingdom*
KPERS	ABP	RRQ	Armed Forces Pension Schemes
LACERA	bpfBOUW	Saskatchewan HEPP	BAE Systems
Michigan ORS	Pensioenfonds Metaal en Techniek		National Grid
MOSERS	Pensioenfonds van de Metalektro	<u>Scandinavia</u>	Principal Civil Service Pension Scheme
NYC TRS	PFZW	Alecta	Pension Protection Fund
NYSLRS	Rabobank Pensioenfonds	ATP	Railway Pensions
Ohio PERS	St. Algemeen Pensioenfonds KLM		Scottish Public Pension Agency
Ohio SERS		United Arab Emirates	Teachers' Pensions Scheme
Oregon PERS		Abu Dhabi RPB	Universities Superannuation Scheme
Pennsylvania PSERS	South Africa		
South Dakota RS	South Africa GEPF		
STRS Ohio			

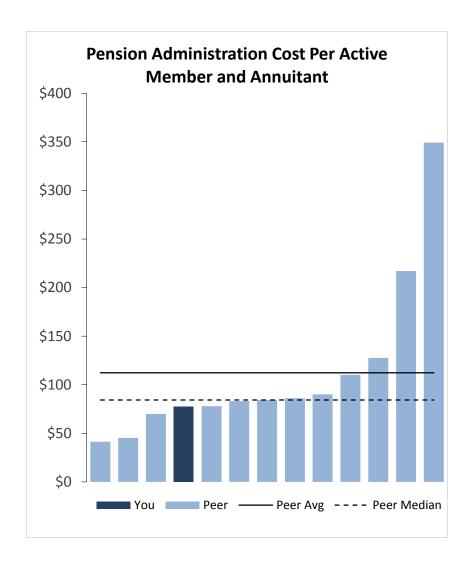
^{*} Systems in Australia and the UK complete different benchmarking surveys and hence your analysis does not include their results.

The custom peer group for Kentucky RS consists of the following 13 peers:

Custom Peer Group for Kentucky RS				
	Membership (in 000's)			
	Active			
Peers (sorted by size)	Members	Annuitants	Total	
STRS Ohio	207	160	366	
Arizona SRS	203	136	339	
Oregon PERS	165	135	299	
Illinois MRF	174	112	286	
Iowa PERS	167	111	279	
TRS Illinois	160	115	275	
Kentucky RS	139	113	252	
KPERS	158	93	251	
Ohio SERS	134	74	209	
NYC TRS	121	85	206	
TRS Louisiana	89	76	165	
Utah RS	101	57	157	
LACERA	94	62	156	
Peer Median	158	111	252	
Peer Average	147	102	249	

Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded because they are less costly to administer than either active members or annuitants.

Your total pension administration cost was \$77 per active member and annuitant. This was \$35 below the peer average of \$112 (and \$7 below the peer median of \$84).



Your total pension administration cost was \$19.5 million. This excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of \$11.5 million.

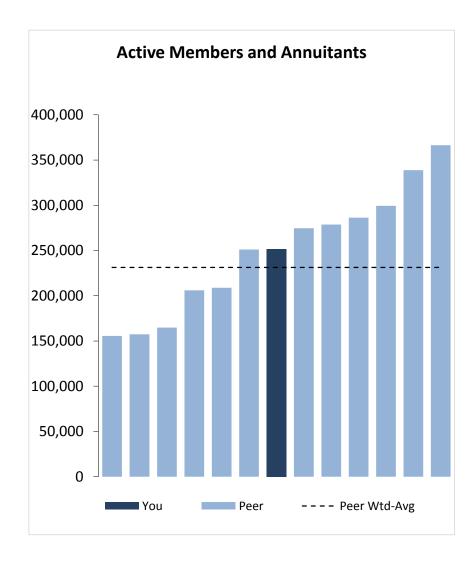
Reasons why the fully-attributed costs are excluded:

- Only a small number of systems administer their own healthcare.
- Healthcare plans vary greatly between systems.

Reasons why your total cost was \$35 below the peer average.

Reason	Impact
Economies of scale advantage	-\$1.50
Lower transactions per member (workloads)	-\$4.89
3. Lower transactions per FTE (productivity)	\$3.67
4. Lower costs per FTE for: salaries and benefits, building and utilities, HR and IT desktop	-\$10.97
5. Lower third-party and other costs in front-office activities	-\$5.78
6. Paying more/-less for back-office activities:- Governance and Financial Control	-\$5.18
- Major Projects	-\$3.56
IT Strategy, Database, Applications (excl. major projects)Actuarial, Legal, Audit, Other Support Services	-\$3.82 -\$2.80
Total	-\$34.82

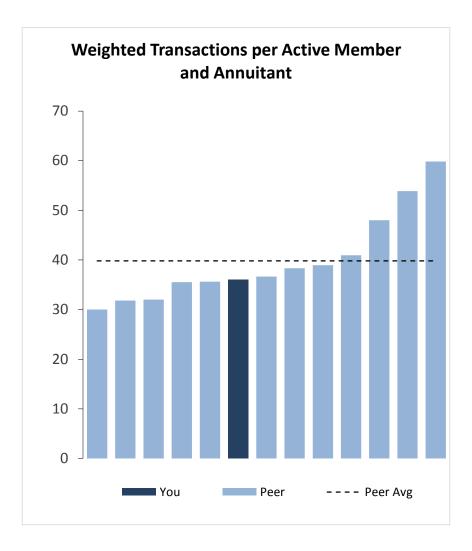
Reason 1: You had an economies of scale advantage.



- Your system had 9% more members than the peer weighted-average. Your larger size means that you had a cost advantage relative to the average peer of \$1.50 per member.
- Size is a key driver of costs. More members lets you spread your fixed costs over a larger base. But the benefit of economies of scale is not linear. Scale economies diminish as systems get larger.

The peer-average is weighted with a higher weight to smaller plans because the relationship between size and cost is not linear.

Reason 2: You had lower transaction volumes per member (workloads).



- Your weighted transactions were 10% below the peer average.
- Your lower transaction volumes decreased your total cost per member by an estimated \$4.89 relative to the peer average.

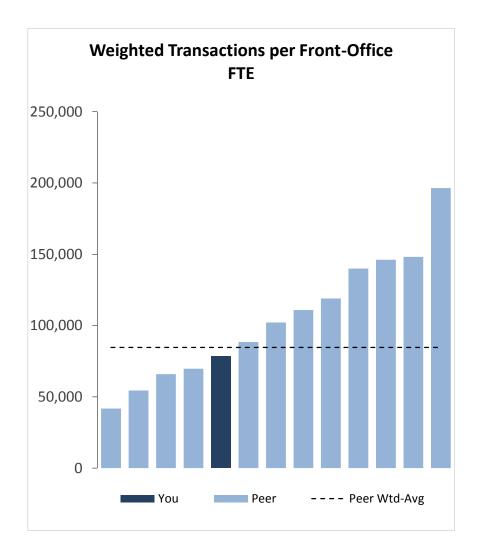
Where did you do more/fewer transactions?

Where did you do more/fewer transactions?				
	Volume per 1,000 Active Members and Annuitants			<u>\$ per</u> Member
Front Office Transactions (or Transaction		Peer	More/	Transaction
Driver)	You	Average	-Less	<u>Impact</u>
1. Member Transactions				
a. Pension Payments (Annuitants)	450	408	10%	\$0.43
b. New Payee Inceptions	26	27	-6%	-\$0.34
c. Withdrawals and Transfers-out	19	26	-25%	-\$0.77
d. Purchases and Transfers-in	7	14	-51%	-\$2.11
e. Disability Applications	2.8	2.3	24%	\$0.82
2. Member Communication				
a. Calls and Emails	877	727	21%	\$1.51
b. Incoming Mail	301	495	-39%	-\$1.38
c. Members Counseled 1-on-1	33	44	-25%	-\$0.85
d. Member Presentations	1	1	-51%	-\$0.97
e. Written Estimates	19	39	-52%	-\$0.93
3. Collections and Data Maintenance				
a. Data and Money from Employers (Active				
Members)	550	592	-7%	-\$0.36
b. Service to Employers (Active Members)	550	592	-7%	-\$0.14
c. Data Not from Employers (Actives,				
Inactives, Annuitants)	1,537	1,345	14%	\$0.20
Weighted Total	36,018	39,819	-10%	-\$4.89

Differences in transaction volumes per member reflect differences in:

- Membership mix (active, inactive, annuitant)
- Member demographics. For example, you may have a higher proportion of active members approaching retirement.
- Member type/ industry group.
- System and plan complexity. For example, if you administer healthcare, you will have higher communication needs.
- Service Levels

Reason 3: You had lower transactions per FTE (total productivity).



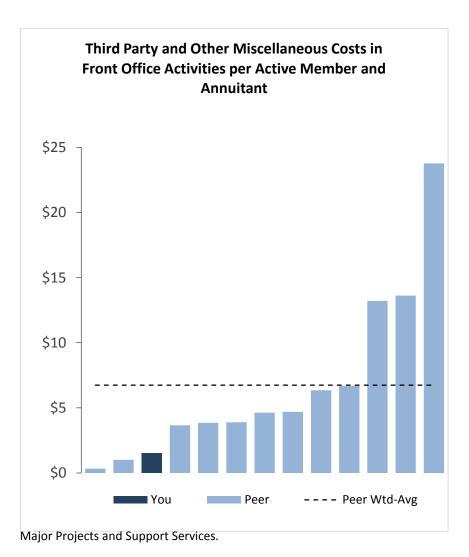
- Your weighted transactions per front-office FTE were 7% below the peer weighted-average.
- Your lower transaction volumes per FTE increased your total cost per member by \$3.67 relative to the peer average.
- Differences in transaction volumes per FTE are due to differences in:
 - Economies of scale. CEM research shows that smaller systems had lower productivity than larger systems.
 - IT capability / on-line transactions
 - Service levels
 - Complexity of plan rules
 - Staff skills and staff productivity
 - Use of consultants versus internal staff
 - Projects
 - Organization design

Reason 4: You had lower costs per FTE for: salaries and benefits, IT desktop, networks and telecom, building and utilities, and human resources.

Cost per FTE					
	You	Peer Avg	Peer Avg		
Salaries and Benefits	\$84,151	\$90,754	\$91,875		
Benefits for Retired Staff	\$0	\$794	\$615		
Building and Utilities	\$6,454	\$10,466	\$10,984		
Human Resources	\$2,001	\$3,272	\$3,901		
IT Desktop, Networks, Telecom	\$12,845	\$13,600	\$13,369		
Total	\$105,451	\$118,886	\$120,745		

- Your lower costs per FTE decreased your total cost by \$10.97 per member relative to the peer average.
- Differences in your cost per FTE reflect differences in:
 - Organization structure, strategy and history
 - Outsourcing and use of consultants
 - Cost environment of your location vs. peers. Labor costs in your area were 26% below the peer average.
- It is interesting to note that 61% of your total salary and benefit cost relates to benefits. The peer average is 33%.

Reason 5: You had lower third party and other miscellaneous costs in the front-office activities.



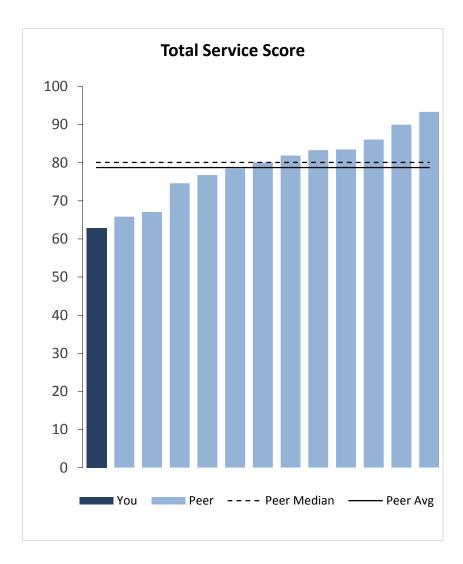
- Your third party and other miscellaneous costs (such as travel, office supplies, etc.) in the front-office activities¹ were \$1.51 per member.
- This was 78% below the peer average of \$6.74.
- Your lower third party costs decreased your total cost per member by \$5.78 relative to the peer average.

Reason 6: You paid less for back-office activities.

Back-Office Activities - (Cost per l	Member	
			More/
Back Office Activities	You	Peer Avg	-less
Governance and Financial Control	\$5.21	\$10.39	-\$5.18
Major Projects	\$4.38	\$7.94	-\$3.56
IT Strategy, Database, Applications	\$10.98	\$14.79	-\$3.82
Actuarial, Legal, Audit, Other	\$10.51	\$13.31	-\$2.80
Total	\$31.07	\$46.43	-\$15.36

- Your cost per active member and annuitant of \$31.07 for back-office activities was below the peer average of \$46.43.
- Paying less for back-office activities decreased your total cost per member by \$15.36 relative to the peer average.
- Differences in cost per member for back-office activities reflects differences in:
 - IT capability
 - IT investment cycle
 - How much you do. For example, some systems have a more strict governance structure. Usually this translates into higher governance costs, but in your case this is not true. Though you have 54 oversight meetings versus a peer average of 34, your cost is lower than your peers here.

Your total service score was 63. This was below the peer median of 80.



- CEM defines service from a member's perspective:
 - More channels
 - Faster turnaround times
 - More availability
 - More choice
 - Better content
 - Higher quality

Comparability to your peers.

Key service measures where you are similar:

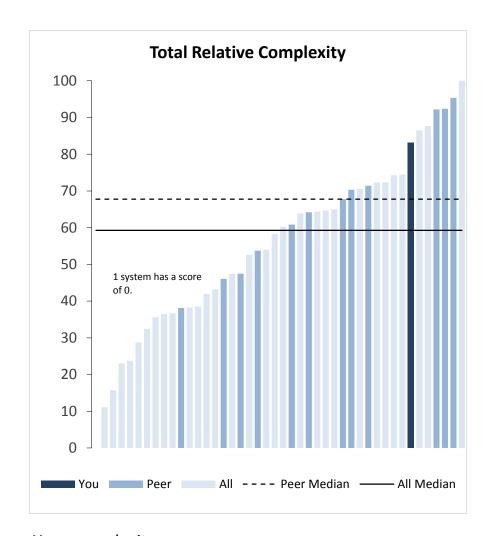
	<u>You</u>	Peer Avg
• Website		
- Can members access their own data in a secure environment?	Yes	100% Yes
- Do you have an online calculator linked to member data?	Yes	85% Yes
- # of other website tools offered such as changing address information, registering		
for counseling sessions and/or workshops, viewing or printing tax receipts, etc.	12	11
	12	
• 1-on-1 Counseling and Member Presentations		
- % of your active membership that attended a 1-on-1 counseling session	6.0%	7.5%
- % of your active membership that attended a presentation	3.8%	5.3%
70 of your delive membership that attended a presentation	3.070	3.370
Pension Inceptions		
 What % of annuity pension inceptions are paid without an interruption of cash flow 	1	
greater than 1 month between the final pay check and the first pension check?		00.20/
greater than I month between the marpay cheek and the mot pension cheek.	90.0%	89.2%
• Marshay Ctatara and		
Member Statements		
 How current is an active member's data in the statements that the member 		
receives?	2.0 mos	2.5 mos
 Do statements provide an estimate of the future pension entitlement? 	Yes	85% Yes

Comparability to your peers (cont'd).

Key service measures where you are different:

	<u>You</u>	Peer Avg
 Member Contacts % of calls resulting in undesired outcomes (busy signals, messages, hang-ups) 	17%	9%
- Average total wait time including time negotiating auto attendants, etc.	6 minutes & 19 sec.	2 minutes & 10 sec.
 Menu Layers What is your average number of menu layers? 	3 layers	2 layers
 Written Estimates What is the turnaround time for providing written estimates? 	180 days	20 days
 <u>Purchases</u> What is the turnaround time for providing a service credit purchase estimate? 	180 days	32 days
 1-on-1 Counseling % of your membership counseled at 1-on-1 sessions in the field What is the wait time for a pre-scheduled in-house counseling session? 	8.4% 40 days	23.2% 32 days

Your complexity is one of the highest in the peer group.



Relative Complexity Score (0 least - 100 most		
Cause	You	Peer Avg
Pension Payment Options	70	58
Customization Choices	64	24
Multiple Plan Types and Overlays	63	43
Multiple Benefit Formula	37	37
External Reciprocity	35	31
COLA Rules	26	31
Contribution Rates	49	57
Variable Compensation	100	92
Service Credit Rules	15	56
Divorce Rules	55	62
Purchase Rules	78	69
Refund Rules	28	55
Disability Rules	83	78
Translation	100	14
Defined Contribution Plan Rules	0	38
Total Relative Complexity	83	68

Your complexity:

- Negatively impacts service
- Reduces front-office productivity

Key Observations:

- KRS' total pension administration cost was \$77 per active member and annuitant. This was \$35 below the peer average of \$112 (and \$7 below the peer median of \$84) across all seven key activity measurement categories.
 - 1. Member Transactions
 - 2. Member Communication
 - 3. Collections and Data Maintenance
 - 4. Governance and Financial Control
 - 5. Major Projects
 - 6. Information Technology
 - 7. Support Services (ex.: Facilities, Human Resources, Actuarial, Legal)
- KRS' total service score was 63. This was below the peer median of 80. The primary reasons being call center wait times, undesired call outcomes and menu layers.
- KRS' complexity is one of the highest in the peer group, and is driven by pension payment options, customization choices, and multiple plan types.
- The KRS membership mix consisted of fewer active members (you: 36%, peers: 45%), and more inactive members (you: 35%, peers: 24%).
- KRS' total assets was less than your peers (you: \$15.9B, peers: \$36.5B). Total assets per active member and annuitant was also lower (you: \$63,135, peers: \$149,151).
- The number of employers KRS serves was greater than the peer average (you: 1,461, peers: 1,031).

KRS Service Update

Complexity - Impacts Service & Productivity

Process

All accounts go through extensive pre-retirement audit process before a Retirement Request is calculated or before a member is counseled in office.

To ensure:

- (1) The member is participating in the correct benefit tier.
- (2) Accurate service credit, salary, and final compensation are considered. Once a calculation is approved, the member's request and subsequent calculations go to quality assurance for results accuracy.



Evolution of Benefits

Tier 1 - prior to 9/1/2008

Most complicated of the benefit plans (77% of our members are in this tier). Legislative changes over the years have created multiple levels of benefits and complexity within Tier I

- Benefit Factor component
- Disability benefit changes for part date on or after 8/1/2004
- Service purchases made on or after 8/1/2004
- Early, unreduced, and normal retirement offered
- No health insurance contribution from member's salary
- KRS' health insurance contribution uses percentage of contribution rate
- KRS' health insurance contribution uses dollar amounts adjusted for 1.5% COLA
- Accumulated Account Balance doesn't determine monthly retirement benefit
- Retired/reemployed if reemployed prior to 9/1/2008, a new retirement account was established and both member and employer make contributions

KENZ

Evolution of Benefits

Tier 2 - effective 9/1/2008

- Benefit Factor determination
- Unreduced and normal retirement offered/early retirement made obsolete
- Rule of 87 introduced to determine unreduced
- 1% Health insurance contribution from member's salary
- KRS' health insurance contribution uses dollar amounts adjusted for 1.5% COLA
- Accumulated Account Balance doesn't determine monthly retirement benefit
- Sick leave is limited to 12 months and cannot count towards retirement eligibility
- Retired/reemployed member cannot contribute to a new retirement account but employer continues to make contributions to KRS

Tier 3 - effective 1/1/2014

- Benefit structure same as Tier 2
- Sick leave is not a component included in the benefit calculation
- Accumulated Account Balance determines life annuity



Other Impacts

- Administration of three benefit tiers plus Health Plans, extends the training time for new Call Center and Benefits Counselors; increases staff turnover.
- Employer reporting changes impact member accounts and require additional audits.
- Senate Bill 2 passed by the 2013 General Assembly contained a provision related to service purchases adding a significant volume of requests to an existing backlog.
- Technology enhancements (member self- service, call center menu options) have helped to reduce/ maintain expenses. However, our members prefer face-to-face or voice interaction with Counselors.



Current Service Initiatives

- Strategic teams were created reducing requests backlog from 24 months to 6 months.
- Call Back Assist feature added to Call Center holds members place in queue and return call provided at whatever number member designates.
- KRS reaching out to 5 peers (STRS Ohio, Ohio PERS, Ohio SERS, Illinois MRF, TRS Illinois) to establish "best in class" practices for Call Center and Member Services processes.
- Training options and class specifications for counselor levels are under review.
- Business processes are being evaluated to improve productivity.
- Re-balancing overtime based on productivity results.
- Technology team is implementing **data "warehouse"** to better identify problem areas (what gets measured, gets managed).

Future Considerations

- Staff education and training strategies.
- Although costly, establishing "pop up" counseling offices (possibly at Employer locations) for expanded counseling outreach.
- Additional Call Center staffing (budget permitting). Note: we piloted Call Center hour's expansion, but volume of calls didn't justify staff OT expenses.
- Integrating more one-on-one counseling at Pre-Retirement Seminars.

Defined Benefit Administration Benchmarking Analysis

Fiscal Year 2015

Kentucky Retirement Systems

Draft Report - 2 March, 2016

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- Access to CEM's online peer network for research and current issues in pension administration.
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Kentucky Retirement Systems

Key Takeaways:

Cost

- Your total pension administration cost was \$77 per active member and annuitant. This was \$35 below the peer average of \$112 (and \$7 below the peer median of \$84).
- The key reasons why:
 - Lower costs for back-office activities
 - Lower costs per FTE
 - Lower third party costs

Service

- Your total service score was 62. This was below the peer median of 80.
- Your call center service score is the primary reason why your total service score was lower than your peers:
 - You have a higher percentage of undesired call outcomes: 17% versus a peer average of 8.8%.
 - You have a higher average call wait time: 379 seconds versus a peer average of 130 seconds.
 - You offer less CRM capabilities compared to your peers. For instance: you do not provide estimates of the member's pension at retirement or cost to purchase service credit versus 69% of your peers that do. You do not have tools to help you project call volumes versus 85% of your peers that do.

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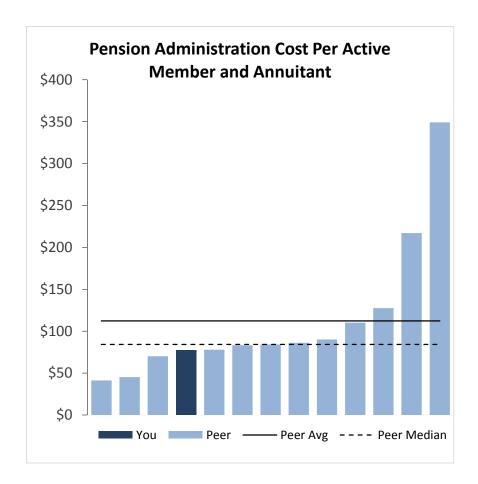
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	\$ per Act		
	and Annuitant		\$000s
Category	You	Peer Avg	You
Member Transactions	14	18	3,426
Member Communication	15	19	3,701
Collections and Data Maintenance	8	9	2,074
Governance and Financial Control	4	10	1,093
Major Projects	4	8	1,102
Information Technology	17	24	4,394
Support Services and Other	15	24	3,701
Total Pension Administration	77	112	19,492

CEM reconciled the reported total pension administration per CEM's survey to your FY2015 CAFR.

Your total pension administration cost was \$19.5 million. This excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of \$11.5 million.

These costs are excluded to ensure comparibility since only a small number of systems administer their own healthcare.

Reasons why your total cost was \$35 below the peer average.

Reason	Impact
 Paying more/-less for back-office activities: Governance and Financial Control Major Projects IT Strategy, Database, Applications (excl. major projects) Actuarial, Legal, Audit, Other Support Services 	-\$5.18 -\$3.56 -\$3.82 -\$2.80
Lower costs per FTE for: salaries and benefits, building and utilities, HR and IT desktop	-\$10.97
3. Lower third-party and other costs in front-office activities	-\$5.78
4. Lower transactions per member (workloads)	-\$4.89
5. Economies of scale advantage	-\$1.50
6. Lower transactions per FTE (productivity)	\$3.67
Total	-\$34.82

The following pages detail the key reasons why your total cost is different from your peers.

Key reason 1: You paid less for back-office activities.

Back-Office Activities - Adjusted Cost per Member				
			More/	
Back Office Activities	You	Peer Avg	-less	
Governance and Financial Control	\$5.21	\$10.39	-\$5.18	
Major Projects	\$4.38	\$7.94	-\$3.56	
IT Strategy, Database, Applications	\$10.98	\$14.79	-\$3.82	
Actuarial, Legal, Audit, Other	\$10.51	\$13.31	-\$2.80	
Total	\$31.07	\$46.43	-\$15.36	

To avoid double counting, back office costs are adjusted for economies of scale and cost per FTE for: salaries, benefits, building, utilities, IT desktop and human resources. Before adjustments, your total costs for the above back-office activities were \$49. The unadjusted peer average was \$75.

- Your adjusted cost per active member and annuitant of \$31.07 for back-office activities was below the peer average of \$46.43.
- Paying less for back-office activities decreased your total cost per member by \$15.36 relative to the peer average.
- Differences in cost per member for back-office activities reflects differences in:
 - How much you do. For example, some systems invest more in disaster recovery.
 - IT capability
 - IT investment cycle
 - Plan complexity

Key reason 2: You had lower costs per FTE for: salaries and benefits, IT desktop, networks and telecom, building and utilities, and human resources.

Cost per FTE						
			FTE-Wtd			
	You	Peer Avg	Peer Avg			
Salaries and Benefits	\$84,151	\$90,754	\$91,875			
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IT Desktop, Networks, Telecom	\$12,845	\$13,600	\$13,369			
Total	\$105,451	\$118,886	\$120,745			

- Your lower costs per FTE decreased your total cost by \$10.97 per member relative to the peer average.
- Differences in your cost per FTE reflect differences in:
 - Organization structure, strategy and history
 - Outsourcing and use of consultants
 - Cost environment of your location vs. peers. Labor costs in your area were 26% below the peer average.

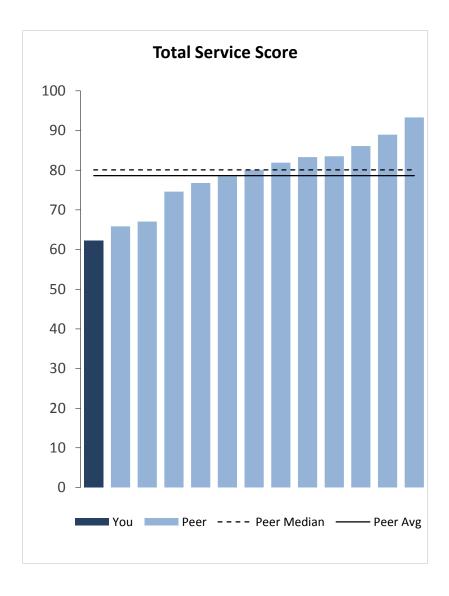
Cost Trends



Trend analysis is based on systems that have provided 4 consecutive years of data (10 of your 13 peers).

Between 2012 and 2015, the average cost of your peers with 4 consecutive years of data increased by 2.6% per annum.

Your total service score was 62. This was below the peer median of 80.



- CEM defines service from a member's perspective:
 - More channels
 - Faster turnaround times
 - More availability
 - More choice
 - Better content
 - Higher quality

Examples of key service measures included in your Service Score:

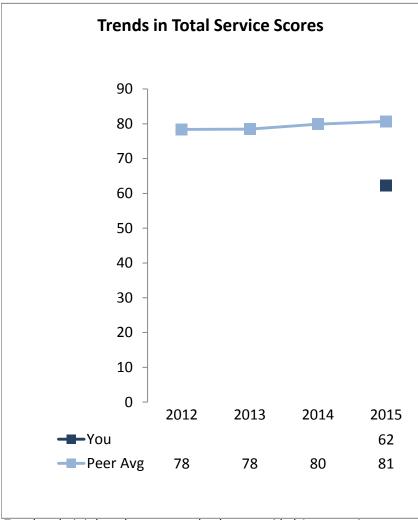
ect Key Service Metrics	You	Peer Avg
Member Contacts		
 % of calls resulting in undesired outcomes (busy signals, messages, hang-ups) 	17%	9%
 Average total wait time including time negotiating auto attendants, etc. 	379 secs	130 secs
<u>Website</u>		
Can members access their own data in a secure environment?	Yes	100% Yes
 Do you have an online calculator linked to member data? 	Yes	85% Yes
 # of other website tools offered such as changing address information, registering for 		
counseling sessions and/or workshops, viewing or printing tax receipts, etc.	12	11
1-on-1 Counseling and Member Presentations		
 % of your active membership that attended a 1-on-1 counseling session 	6.0%	7.5%
 % of your active membership that attended a presentation 	3.8%	5.3%
Pension Inceptions		
• What % of annuity pension inceptions are paid without an interruption of cash flow greater		
than 1 month between the final pay check and the first pension check?	90.0%	89.2%
Member Statements		
 How current is an active member's data in the statements that the member receives? 	2.0 mos	2.5 mos
 Do statements provide an estimate of the future pension entitlement? 	Yes	85% Yes

Where can you improve your total service score?

	Biggest potential improvements to your total service sco	re
Rank	Factor	Potential Improvement
#1	On average, members calling your call center reach a knowledgeable person in 379 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 20 seconds or less.	+ 3.8
# 2	On average, you provide a service credit purchase in 180 days. To achieve a perfect service score, you must be able to provide a service credit purchase estimate in 1 day or less.	+ 3.1
#3	17.0% of your incoming calls resulted in undesired outcomes. To achieve a perfect service score, members must experience no undesired call outcomes.	+ 2.9
# 4	You have 3 menu layers. To achieve a perfect service score you must have one or fewer menu layers.	+ 1.7

- CEM does not make recommendations on service improvements.
- Service improvement should be cost effective and important to your members.

Trends in service.



Trend analysis is based on systems that have provided 4 consecutive years of data (10 of your 13 peers).

Between 2012 en 2015, your peers with 4 consecutive years of data increased their total service score by an average of 1.3% per annum.

Through CEM Insights we conduct best practice reviews of key business and service areas in pension administration.

• Future publications:

- Social Media; State of the nation
- Fruit Instead of Ice Cream: Can You Tempt Your Members with Lower Cost Transactions?
- Social Media; Business strategy

• Recent publications:

- Case Study on the Arizona State Retirement System: Strategies to Maximize Productivity
- Mobile Apps: Are They Right for Your Plans and Your Members?
- Telecommuting Practices in Pension Administration: Current and Future Trends
- Employer services

Peer Characteristics

This section contains:

- Your custom peer group
- A comparison of the characteristics of all participants

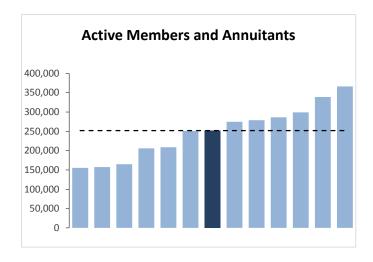
Your peer group consists of 13 peers.

The most relevant comparisons are to systems similar to you in total membership and nationality. Your peer group consists of the following 13 systems:

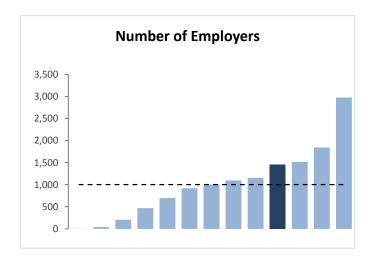
	Custom Peer Group for k	Centucky RS	
	Active	Annuitants	Total
STRS Ohio	206,568	159,906	366,474
Arizona SRS	203,252	135,538	338,790
Oregon PERS	164,859	134,520	299,379
Illinois MRF	174,006	112,357	286,363
Iowa PERS	167,367	111,368	278,735
TRS Illinois	159,707	114,922	274,629
Kentucky RS	138,542	113,298	251,840
KPERS	158,325	92,742	251,067
Ohio SERS	134,471	74,372	208,843
NYC TRS	120,749	85,245	205,994
TRS Louisiana	88,814	76,002	164,816
Utah RS	100,564	56,810	157,374
LACERA	93,674	61,895	155,569
Peer Median	158,325	111,368	251,840
Peer Avg	146,992	102,229	249,221

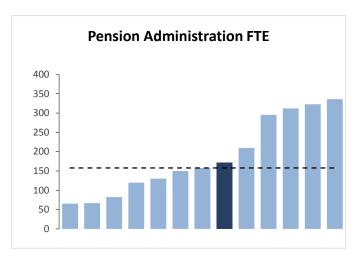
Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded when determining cost per member because they are much less costly to administer than either active members or annuitants.

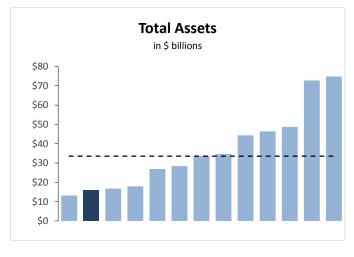
Graphical summary of peer characteristics

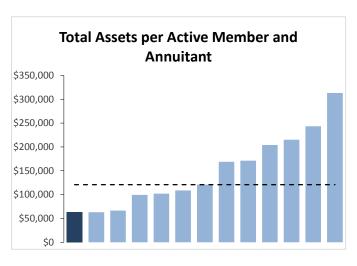












Profiles of the 55 benchmarking participants

(excluding Australian and UK systems)

Participant	Membe	rs by Typ	oe (000s)			Me	emb	er (Gro	ups				F	Plar	ı Ty	pes			
	Active Members	Annuitants	Inactive Members	City or County Only	State/ County Employees	Teachers	School	Police and/or Fire	Participating Local Employers	Other (judges etc)	Corporate	Industry	DB	Cash Balance	DB/ Cash Balance	DB/ Money Match	Drop	DC	Hybrid DB/ DC	Administer Retiree Healthcare
Canada APS BC Pension Corporation Defence Canada FPSPP HOOPP LAPP OMERS Ontario Pension Board Ontario Teachers OPTrust RCMP Régie des rentes du Québec Saskatchewan HEPP	206 303 90 291 186 153 275 42 182 48 23 4,058 35	89 166 111 274 83 55 135 36 129 32 19 1,867 15	47 68 0 4 26 30 41 6 70 7 0 1,055		x x x x x x x x x x x x x x x x x x x	x	x x x		x x x x	X X X		x x x	X X X X X X X X X X X X X X X X X X X		X				x	x
Scandinavia ATP Alecta The Netherlands	3,025 518	943 699	939 608		х						х	X							x	
ABN AMRO Pensioenfonds ABP bpfBOUW Pensioenfonds Metaal en Techniek Pensioenfonds van de Metalektro PFZW Rabobank Pensioenfonds Stichting Algemeen Pensioenfonds KLM	20 1,092 131 378 147 1,182 42 15	25 817 248 206 167 369 15	53 927 460 656 309 1,022 42 8										X X X X X							
United Arab Emirates Abu Dhabi RPB* South Africa																				
South Africa GEPF	1,266	406	0	х	X	Х	Х	Х	Χ	Χ			Х							

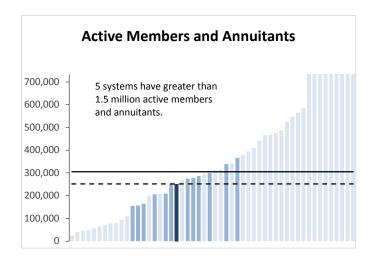
Fund characteristics

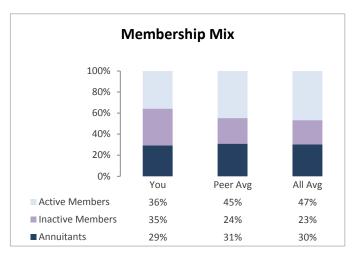
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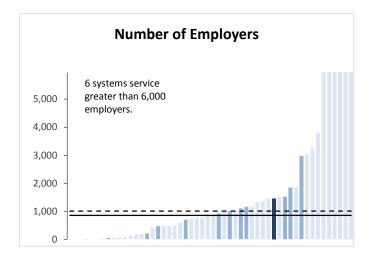
Participant	Membe	rs by Ty	pe (000s)			Me	emb	er (Gro	ups			Plan Types							
	Active Members	Annuitants	Inactive Members	City or County Only	State/ County Employees	Teachers	School	Police and/or Fire	Participating Local Employers	Other (judges etc)	Corporate	Industry	DB	Cash Balance	DB/ Cash Balance	DB/ Money Match	Drop	DC	Hybrid DB/ DC	Administer Retiree Healthcare
United States																				
Arizona SRS CalPERS*	203	136	219		Χ	Χ	Χ		Χ	Χ			X	Χ						>
CalSTRS*																				
Colorado PERA	234	107	209		Χ	Х	Х		Х	Х			х					Х	Χ	,
Delaware PERS	42	28	16		Х	Х	Х	Х	Х	Х			X					,,	,,	1
Florida Retirement System	622	412	116		Х	Х	Х	Х	Х	Х			Х				Х	Х		
Idaho PERS	67	43	30		Х	Х	Х	Х	Х	Χ			Х						Х	Н
Illinois MRF	174	112	118				Х	Х	Х				Х							
Indiana PRS	257	138	58		Х	Χ	Х	Х	Х	Χ			Х				Χ	Χ	Х	
Iowa PERS	167	111	67		Χ	Χ	Χ	Χ	Χ	Χ			Х							
Kentucky RS	139	113	135		Χ		Χ	Χ	Χ	Χ	Χ		Х	Χ	Χ)
KPERS	158	93	49		Χ	Χ	Χ	Χ	Χ	Χ			Χ	Χ						
LACERA	94	62	13	Χ				Χ		Χ			Χ)
Michigan ORS	233	255	539		Χ	Χ	Χ	Χ		Χ			Χ				Χ	Χ	Χ)
MOSERS	50	44	19		Χ		Χ	Χ		Χ			Χ							
NYC TRS	121	85	39	Χ		Χ	Χ						Χ						Χ	
NYSLRS	523	430	120		Χ		Χ	Χ	Χ	Χ			Χ							
Ohio PERS	346	201	497		Χ			Χ		Χ			Χ	Χ					Χ)
Ohio SERS	134	74	58				Χ						Χ)
Oregon PERS	165	135	65		Χ	Χ	Χ	Χ	Χ	Χ						Χ			Χ)
Pennsylvania PSERS	256	220	141		Χ	Χ	Χ						Χ)
South Dakota RS	39	26	17		Χ	Χ	Χ	Χ	Χ	Χ			Χ							
STRS Ohio	207	160	148			Χ							Χ					Χ	Χ	>
TRS Illinois	160	115	126			Χ							Х							
TRS Louisiana	89	76	23			Χ	Χ						Χ				Χ	Χ		
TRS of Texas	829	378	253		Χ	Χ	Χ						Χ							>
Utah RS	101	57	108		Χ	Χ	Χ	Χ	Χ	Χ			Χ					Χ	Χ	
Virginia RS	341	185	123		Χ	Χ	Χ	Χ	Χ	Χ			Χ						Χ	
Washington State DRS	301	165	241		Χ	Χ	Χ	Χ	Χ	Χ			Χ						Χ	
Wisconsin DETF	257	186	161		Χ	Χ	Χ	Χ	Χ	Χ									Χ)

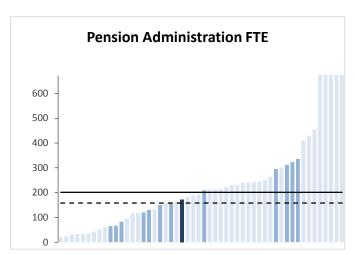
^{*} We have not yet received clean data from the 3 systems identified with an asterisk. Therefore, these systems have been excluded from this analysis.

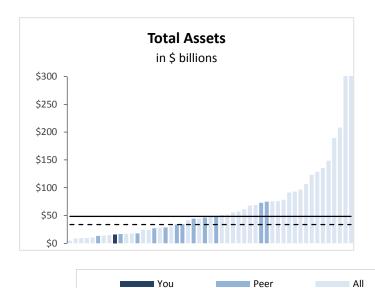
Graphical summary of all participant characteristics





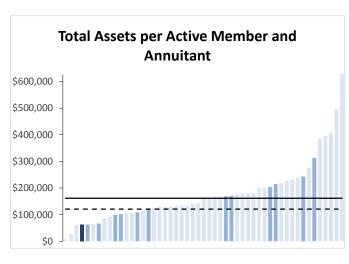






■ You

Peer



All Median

--- Peer Median

Total Cost

This section:

- Compares your total cost per member
- Quantifies the impact of economies of scale, transaction volumes, productivity, salary per FTE, and other differences on your relative cost performance.
- Compares your salaries and benefits, and third party costs.

Your total pension administration cost was \$19.5 million or \$77 per active member and annuitant.

	Cost ¹	\$s per Active Member and			% of	Total Pen	sion
	\$000s		Annuitant			inistration	
Activity ¹	You	You	Peer Avg	All Avg	You	Peer Avg	All Avg
1. Member Transactions							
a. Pension Payments	687	2.73		4.43	3.5%	2.7%	3.7%
b. Pension Inceptions	514	2.04		5.99	2.6%	4.3%	5.0%
c. Withdrawals and Transfers-out	686	2.73	2.42	2.49	3.5%	2.2%	2.1%
d. Purchases and Transfers-in	0	0.00	1.47	2.71	0.0%	1.3%	2.3%
e. Disability	<u>1,539</u>	<u>6.11</u>	<u>6.24</u>	2.14	<u>7.9%</u>	<u>5.6%</u>	<u>1.8%</u>
	3,426	13.60	18.02	17.76	17.6%	16.1%	14.9%
2. Member Communication							
a. Call Center	1,444	5.74	5.48	5.51	7.4%	4.9%	4.6%
b. Mail Room, Imaging	368	1.46	3.92	2.95	1.9%	3.5%	2.5%
c. 1-on-1 Counseling	1,132	4.49	2.75	1.78	5.8%	2.5%	1.5%
d. Presentations and Group Counseling	188	0.75	1.28	1.22	1.0%	1.1%	1.0%
e. Written Pension Estimates	0	0.00	2.02	1.81	0.0%	1.8%	1.5%
f. Mass Communication	<u>569</u>	<u>2.26</u>	<u>3.75</u>	3.71	2.9%	3.3%	3.1%
	3,701	14.70	19.20	16.97	19.0%	17.1%	14.2%
3. Collections and Data Maintenance							
a. Data and Money from Employers	1,432	5.69	5.28	5.56	7.3%	4.7%	4.7%
b. Service to Employers	0	0.00	1.74	1.97	0.0%	1.5%	1.7%
c. Data Not from Employers	642	<u>2.55</u>	<u>1.69</u>	<u>1.71</u>	3.3%	<u>1.5%</u>	1.4%
	2,074	8.24	8.71	9.24	10.6%	7.8%	7.7%
4. Governance and Financial Control							
a. Financial Administration and Control	726	2.88	4.79	4.30	3.7%	4.3%	3.6%
b. Board, Strategy, Policy	271	1.08	3.16	7.11	1.4%	2.8%	5.9%
c. Government and Public Relations	<u>96</u>	0.38	<u>1.90</u>	2.57	0.5%	1.7%	2.2%
	1,093	4.34	9.85	13.98	5.6%	8.8%	11.7%
5. Major Projects							
a. Amortization of non-IT Major Projects	30	0.12		0.05	0.2%	0.0%	0.0%
b. Non-IT Major Projects (if you don't capitalize)	0	0.00	1.34	0.98	0.0%	1.2%	0.8%
c. Amortization of IT Major Projects	1,073	4.26	2.05	7.48	5.5%	1.8%	6.3%
d. IT Major Projects (if you don't capitalize)	0	0.00	<u>4.52</u>	<u>6.46</u>	0.0%	4.0%	<u>5.4%</u>
	1,102	4.38	7.92	14.96	5.7%	7.1%	12.5%
6. Information Technology							
a. IT Strategy, Database Management and Applications	2,375	9.43	14.45	17.96	12.2%	12.9%	15.0%
b. IT Desktop, Networks, Telecom	2,020	8.02	<u>9.59</u>	<u>7.25</u>	<u>10.4%</u>	<u>8.5%</u>	<u>6.1%</u>
	4,394	17.45	24.04	25.21	22.5%	21.4%	21.1%
7. Support Services and Other							
a. Building and Utilities	1,015	4.03	7.88	7.30	5.2%	7.0%	6.1%
b. Human Resources	315	1.25		2.61	1.6%	2.5%	2.2%
c. Actuarial	228	0.91		2.10	1.2%	1.1%	1.8%
d. Legal and Rule Interpretation	1,545	6.14		4.38	7.9%	4.1%	3.7%
e. Internal and External Audit	286	1.14		2.50	1.5%	2.9%	2.1%
f. Pay-as-you-go Benefits for Retired Staff	0	0.00	0.44	0.17	0.0%	0.4%	0.1%
g. Other Support Services	<u>312</u>	<u>1.24</u>	<u>4.34</u>	2.33	<u>1.6%</u>	3.9%	2.0%
	3,701	14.70	24.49	21.39	19.0%	21.8%	17.9%
Total Pension Administration ²	19,492	77.40	112.22	119.52	100.0%	100.0%	100.0%

^{1.} Refer to the appendix C for detailed activity definitions.

^{2.} The fully-attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from pension administration costs to ensure comparability. Refer to the second to last page of this section to see how the above costs reconcile to the administration costs provided on your survey.

Quartile comparisons of the components of total cost

The table below shows activity costs on a 'per member' basis (e.g. call center cost per member). In section 4, the same costs are compared on a 'per unit of activity volume' basis (e.g. call center cost per call).

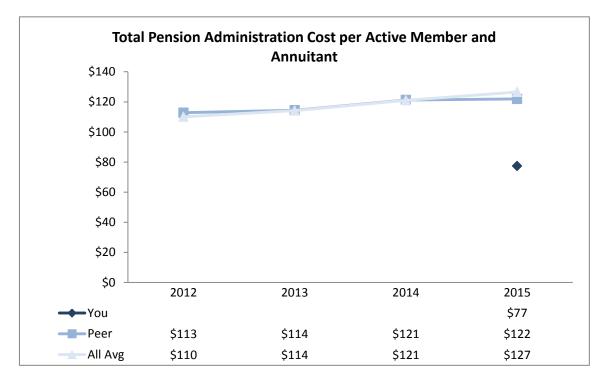
\$ Co	st per	Active	Men	nber a	nd An	nuita	nt						
				Pe						All Parti	cipants		
Activity ¹	You	Avg	Max	Q3	Med	Q1	Min	Avg	Max	Q3	Med	Q1	Min
1. Member Transactions													
a. Pension Payments	2.73	3.02	5.04	3.81	2.73	1.81	1.04	4.43	26.51	4.82	2.87	1.68	0.12
b. Pension Inceptions	2.04	4.87	10.35	7.84	4.06	2.20	1.51	5.99	40.97	7.92	3.55	2.18	0.18
c. Withdrawals and Transfers-out	2.73	2.42	5.75	2.73	1.97	1.34	0.94	2.49	12.32	3.22	1.54	0.71	0.00
d. Purchases and Transfers-in	0.00	1.47	4.84	1.65	0.85	0.65	0.00	2.71	22.36	3.40	0.94	0.48	0.00
e. Disability	6.11	<u>6.24</u>	51.38	3.85	2.06	0.31	0.02	<u>2.53</u>	51.38	2.06	0.46	0.05	0.00
	13.60	18.02	75.15	17.82	14.38	9.23	4.65	17.76	75.15	20.49	13.56	7.72	0.38
2. Member Communication													
a. Call Center	5.74	5.48	14.74	6.15	5.47	2.84	1.63	5.51	30.92	6.98	4.68	3.00	0.00
b. Mail Room, Imaging	1.46	3.92	21.04	3.51	1.94	1.46	0.46	2.95	21.04	3.68	1.92	1.05	0.07
c. 1-on-1 Counseling	4.49	2.75	7.92	2.84	2.24	1.41	0.32	1.78	11.55	2.07	1.11	0.19	0.00
d. Presentations and Group Counseling	0.75	1.28	5.82	1.26	0.81	0.53	0.26	1.22	7.29	1.34	0.71	0.28	0.00
e. Written Pension Estimates	0.00	2.02	12.32	2.17	1.00	0.46	0.00	1.81	14.40	2.00	1.12	0.42	0.00
f. Mass Communication	2.26	<u>3.75</u>	11.01	4.44	2.50	2.19	1.46	<u>3.71</u>	11.01	4.65	3.58	2.00	0.19
	14.70	19.20	70.85	18.86	14.70	11.75	5.76	16.97	70.85	18.57	15.33	11.58	0.80
3. Collections and Data Maintenance													
a. Data and Money from Employers	5.69	5.28	14.89	5.69	4.06	2.34	1.56	5.56	27.72	6.25	4.00	1.96	0.18
b. Service to Employers	0.00	1.74	3.83	2.45	1.68	1.12	0.00	1.97	9.20	2.68	1.53	0.82	0.00
c. Data Not from Employers	2.55	1.69	4.35	1.58	1.40	1.08	0.25	<u>1.71</u>	9.10	2.17	1.09	0.33	0.00
	8.24	8.71	19.41	8.24	7.50	4.85	4.52	9.24	33.17	11.10	7.42	4.31	0.44
4. Governance and Financial Control													
a. Financial Administration and Control	2.88	4.79	21.55	4.48	3.52	2.28	1.43	4.30	21.55	4.79	3.63	2.26	0.23
b. Board, Strategy, Policy	1.08	3.16	6.35	4.03	3.47	1.80	0.81	7.11	45.29	8.24	3.80	1.33	0.13
c. Government and Public Relations	0.38	1.90	6.35	1.74	1.33	0.71	0.28	2.57	18.75	2.82	1.32	0.39	0.00
	4.34	9.85	34.25	9.87	7.13	5.60	2.98	13.98	70.49	17.19	8.97	4.97	0.59
5. Major Projects													
a. Amortization of non-IT Major Projects	0.12	0.01	0.12	0.00	0.00	0.00	0.00	0.05	1.51	0.00	0.00	0.00	0.00
b. Non-IT Major Projects (if you don't capitalize)	0.00	1.34	12.33	1.15	0.00	0.00	0.00	0.98	16.57	0.15	0.00	0.00	0.00
c. Amortization of IT Major Projects	4.26	2.05	6.19	4.18	0.87	0.00	0.00	7.48	294.89	2.26	0.00	0.00	0.00
d. IT Major Projects (if you don't capitalize)	0.00	<u>4.52</u>	32.13	4.81	1.34	0.00	0.00	6.46	141.33	4.84	0.38	0.00	0.00
	4.38	7.92	44.45	7.91	6.86	1.74	0.00	14.96	294.89	8.75	4.63	0.00	0.00
6. Information Technology													
a. IT Strategy, Database, Applications (excl. major	9.43	14.45	37.19	18.21	12.79	8.16	3.05	17.96	55.56	25.11	14.14	7.71	2.59
projects)													
b. IT Desktop, Networks, Telecom	8.02	<u>9.59</u>	36.08	8.78	8.02	5.73	2.69	7.25	36.08	8.57	6.11	3.81	0.00
	17.45	24.04	73.27	26.96	18.78	16.15	8.77	25.21	73.27	34.49	19.50	14.36	3.19
7. Support Services and Other													
a. Building and Utilities	4.03	7.88	33.53	10.94	4.87	4.03	1.41	7.30	33.53	10.33	6.55	3.18	0.38
b. Human Resources	1.25	2.80	15.89	2.50	1.91	0.98	0.35	2.61	15.89	3.04	1.74	0.67	0.00
c. Actuarial	0.91	1.22	2.51	1.70	1.04	0.89	0.00	2.10	9.96	2.51	1.34	0.77	0.00
d. Legal and Rule Interpretation	6.14	4.56	21.66	5.96	2.26	1.74	0.93	4.38	21.66	6.00	3.20	1.67	0.08
e. Internal and External Audit	1.14	3.25	21.22	2.35	1.54	1.30	0.59	2.50	21.22	2.68	1.52	0.99	0.07
f. Pay-as-you-go Benefits for Retired Staff	0.00	0.44	3.07	0.20	0.00	0.00	0.00	0.17	3.07	0.00	0.00	0.00	0.00
g. Other Support Services	1.24	<u>4.34</u>	30.23	4.23	1.79	0.84	0.00	2.33	30.23	3.53	0.98	0.00	0.00
	14.70	24.49	75.75	21.56	17.08	14.70	5.40	21.39	75.75	25.37	16.97	13.31	1.28
Total Pension Administration ²	77.40	112.22	349.21	110.06	84.19	77.40	41.22	119.52	460.23	132.88	94.51	75.54	10.09

^{1.} Refer to the appendix C for detailed activity definitions.

^{2.} Only averages will add to totals. The Max/ Q3/ Med/ Q1/ Min activity costs will not add to their respective totals and subtotals because, for example, the system with the median cost (i.e., the middle value) will not be the same for all activities and totals.

Cost trends

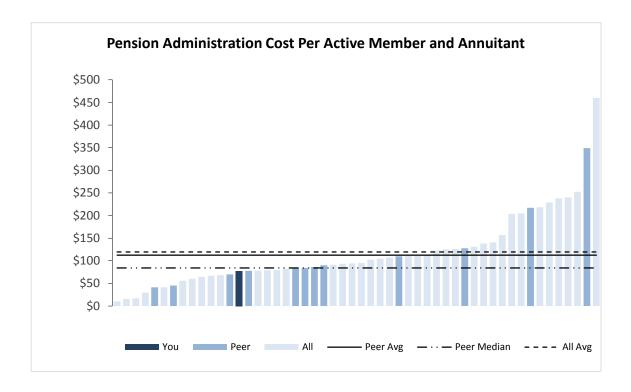
The total pension administration costs of your peers that have participated for 4 consecutive years have grown at a compound annual rate of 2.6% between 2012 and 2015. Your growth rate for the same period is unavailable.



^{1.} Trend analysis is based on systems that have participated for 4-consecutive years (10 peers and 41 World systems). This ensures that trends are not caused by changes in the composition of the participants.

^{2.} All foreign currency amounts have been converted to USDs using Purchasing Power Parity figures as per the OECD (see Appendix B). The same exchange rate was used for both the current and prior years. The benefit of using the same exchange rate for prior years is that changes in costs reflect fluctuations in your peers' costs and not fluctuations in foreign exchange.

Your total pension administration cost was \$77 per active member and annuitant. This was \$35 below the peer average of \$112 (and \$7 below the peer median of \$84).

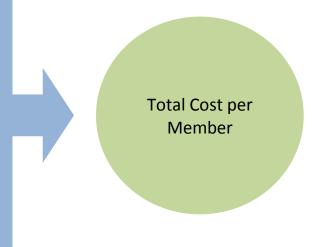


Pension administration cost excludes the fully-attributed costs of activities 1f. Healthcare Administration, and 1g. Optional and Third Party Administered Benefits.

CEM uses the following cost model to explain differences in total costs:

Reasons for differences in total costs

- 1 Economies of scale
- 2 Transactions per member (Workloads)
- 3 Transactions per FTE (Productivity)
- 4 Paying more/less per FTE for: salaries and benefits, building and utilities, HR and IT desktop
- 5 Higher/ lower third-party costs and other miscellaneous costs in front-office activities (Front office activities are Member Transactions, Member Communication and Collections and Data Maintenance.)
- 6 Higher/ lower back-office activity costs (Back office activities are Governance and Financial Control, Major Projects and Support Services.)



In this section, CEM quantifies the amount by which differences in each of the six reasons identified above cause your total pension administration cost to differ from the peer average.

Average versus Median

In the other sections of this report, CEM compares your performance to the median (i.e., the middle value or 50th percentile). This is because medians are less sensitive to outlier data than averages. An example of an outlier is a single peer with unusually high costs. In this section, we compare and reconcile your total costs to the peer average because:

- There are interactions between the reasons for differences in total cost that would be lost if we used medians.
- It is necessary if we want the reasons to add to 100%. The sum of median parts does not add up to the median total.

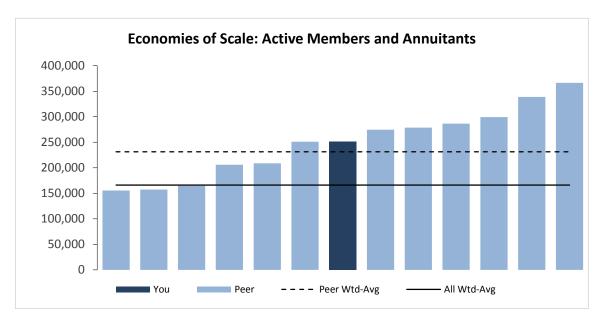
Reasons why your total cost was \$35 below the peer average.

Reas	son	Impact \$s per active member and annuitant
1.	Economies of scale advantage	-\$1.50
2.	Fewer transactions per member (workloads)	-\$4.89
3.	Fewer transactions per FTE	\$3.67
4.	Lower costs per FTE for: salaries and benefits, building and utilities, HR and IT desktop	-\$10.97
5.	Lower 'other miscellaneous' costs in front-office activities	-\$5.78
6.	Paying more/-less, after adjusting for economy of scale and salary differences, for:	
	- Governance and Financial Control	-\$5.18
	- Major Projects	-\$3.56
	- IT Strategy, Database, Applications (excl. major projects)	-\$3.82
	- Actuarial, Legal, Audit, Other Support Services	-\$2.80
Tot	cal	-\$34.82

Each of these reasons are examined in detail in the remainder of this section.

Reason 1: You had an economies of scale advantage.

Your system had 9% more members than the peer weighted-average. Your larger size means that you had a cost advantage relative to the average peer of \$1.50 per member.



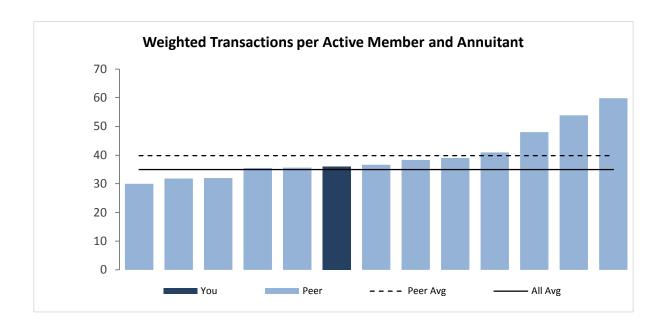
The peer and all averages are weighted with a higher weight to smaller systems because the relationship between size and cost is not linear.

Size is a key driver of costs. More members lets you spread your fixed costs over a larger base. But the benefit of economies of scale is not linear. Scale economies diminish as systems get larger. For example, if your membership was reduced by 50% then your predicted cost would increase by \$16.91 per member, whereas if your membership increased by 50% your predicted cost would only decrease by \$5.64 per member.

How Chang	es in Members	hip Impact Y	our Cost
		Your	
		Predicted	
% Change in	Implied # of	Cost per	Increase/
Members	Members	Member	-Decrease
-75%	62,960	\$128.12	\$50.72
-50%	125,920	\$94.30	\$16.91
-25%	188,880	\$83.03	\$5.64
0%	251,840	\$77.40	\$0.00
25%	314,800	\$74.02	-\$3.38
50%	377,760	\$71.76	-\$5.64
75%	440,720	\$70.15	-\$7.25

Reason 2: You had lower transaction volumes per member (workloads).

Weighted transactions indicates whether you are doing more or less front-office transactions per member in aggregate than your peers. Your weighted transactions were 10% below the peer average. Your lower transaction volumes decreased your total cost per member by an estimated \$4.89 relative to the peer average.



Where did you do more/less f	ront office	transactions?		
	Volume p	er 1,000 Active	Members	
		and Annuitants	S	
			More/ -	Transaction
Front Office Transactions (or Proxy)	You	Peer Avg	Less	Impact
Pension Payments (Annuitants)	450	408	10%	\$0.43
New Payee Inceptions	26	27	-6%	-\$0.34
Withdrawals and Transfers-out	19	26	-25%	-\$0.77
Purchases and Transfers-in	7	14	-51%	-\$2.11
Disability Applications	3	2	24%	\$0.82
Calls and Emails	877	727	21%	\$1.51
Incoming Mail	301	495	-39%	-\$1.38
Members Counseled 1-on-1	33	44	-25%	-\$0.85
Member Presentations	1	1	-51%	-\$0.97
Written Estimates	19	39	-52%	-\$0.93
Mass Communication (Active Members and Annuitants)	1,000	1,000	0%	\$0.00
Data and Money from Employers (Active Members)	550	592	-7%	-\$0.36
Service to Employers (Active Members)	550	592	-7%	-\$0.14
Data Not from Employers (Actives, Inactives, Annuitants)	1,537	1,345	14%	\$0.20

Differences in front-office transaction volumes are due to differences in activities that you administer (some do not administer disability for example), service levels and, member mix and demographics. Refer to section '6 - Transaction Volumes' for detailed analysis and comparison of your transaction volumes.

Membership Mix

An important source of differences in transaction volumes is membership mix. For example, active members typically produce more transactions than annuitants, so systems with a higher proportion of active members relative to annuitants tend to have higher transaction volumes, and therefore be more expensive to administer on a per member basis.

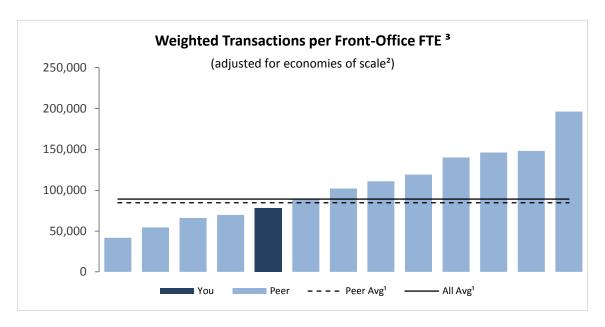
Your membership mix was more expensive than the peer average. If you had the same membership mix as the peer average, your costs would have been \$1.51 per member lower.

	\$ per active member
Components of Transaction Volume Impact ¹	and annuitant
More expensive membership mix	\$1.51
Less transactions per member after neutralizing for membership mix	-\$6.40
Total transaction volume impact	-\$4.89

¹ The impact of your membership mix is neutralized by calculating what your transaction volumes would be if you had the peer average membership mix of 45% actives, 24% inactives and 31% annuitants (versus your actual mix of 36% actives, 35% inactives and 29% annuitants).

Reason 3: You had lower transactions per FTE (productivity).

Your weighted transactions per front-office FTE³ were 7% below the adjusted¹ peer average. Your lower transaction volumes per FTE increased your total cost per member by \$3.67 relative to the peer average.



- 1. The averages are weighted by workloads (i.e., weighted transactions per member) because differences in productivity matter more for peers with higher workloads when explaining cost differences.
- 2. To avoid double counting, weighted transactions per FTE were adjusted for differences in economies of scale.
- 3. Front-office FTE work in activities that come in contact with clients or employers, such as paying pensions, member calls and presentations. It excludes back-office activities such as Governance and Financial Control, Major Projects and Support Services. Refer to 'Section 5 Staff Costs and Productivity' for detailed analysis and comparison of your volumes per FTE for each front-office activity.

Differences in transactions per FTE are due to differences in:

- Economies of scale (adjusted for in the above comparison)
- Staff skills and productivity
- IT capability / on-line transactions
- Service levels, for example, shorter wait times may require more staff
- Complexity of plan rules
- Using more consultants or third parties to do part of the front-office work.
- Projects
- Organization design

Reason 4: You had lower salaries and benefits, building and utilities, HR and IT desktop costs per FTE.

Co	ost per FTE		
			FTE-Weighted
Costs that vary per FTE	You	Peer Avg	Peer Avg
Salaries and Benefits			
Front Office	\$76,199	\$77,903	\$80,547
Back Office	\$106,335	\$117,403	\$120,755
Blended Average	\$84,151	\$90,754	\$91,875
Pay-as-you-go Benefits for Retired Staff	\$0	\$794	\$615
Building and Utilities	\$6,454	\$10,466	\$10,984
Human Resources	\$2,001	\$3,272	\$3,901
IT Desktop, Networks, Telecom	\$12,845	\$13,600	\$13,369
Total	\$105,451	\$118,886	\$120,745

Your cost per FTE for salaries and benefits, building and utilities, human resources and IT desktop of \$105,451 was 13% below the FTE-weighted peer average of \$120,745. Your lower costs per FTE decreased your total cost per member by \$10.97 relative to the peer average.

The cost model uses the FTE-weighted average because 'Cost per FTE' differences matter more for peers with more FTEs. The FTE-weighted average can be substantially different from the simple average.

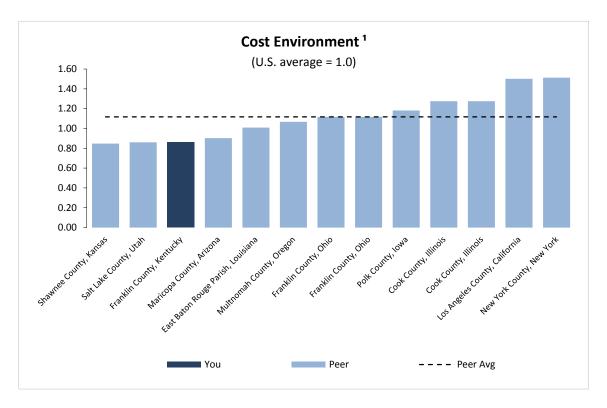
Averages can also mask the often large differences in front and back-office salaries. Therefore, both front and back-office averages for salaries and benefits are shown in the table above. Refer to section '5 - Staff Costs and Productivity' for much more detailed comparisons of your staffing levels and cost per FTE.

Differences in what you pay per FTE reflect differences in:

- Cost environment. Labor costs in your area were 26% below the peer average.
- Square footage of office space per FTE.
- Organization structure, strategy and history.
- Using consultants for functions associated with high salaries. This will reduce your salary cost per FTE, but increase your third party cost. The impact of differences in third party costs is quantified separately on page 3-14 in this section.

Cost environment

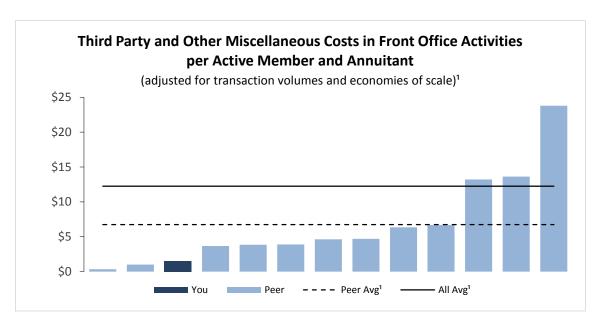
Often a key reason for differences in 'cost per FTE' is cost environment. Labor costs in your area were 26% below the peer average.



^{1.} The cost environment is based on Bureau of Labor Statistics data for state government public administration wages within a given geographical area. It is normalized at 1 to be the national average. Source: Bureau of Labor Statistics (http://www.bls.gov/)

Reason 5: You had lower third party and other miscellaneous costs in the front-office activities.

Your third party and other miscellaneous costs (such as travel, office supplies, etc) in the front-office activities² were \$1.51 per member which was 78% below the adjusted¹ peer weighted average of \$6.74. Your lower third party costs decreased your total cost per member by \$5.78 relative to the peer average.



- 1. The peer costs are adjusted for differences in transaction volumes and economies of scale in order to avoid double counting. The average shown is weighted by transaction volumes per member.
- 2. Front-office activities are activities that come in contact with clients or employers, such as paying pensions, member calls and presentations. It excludes back-office activities such as Governance and Financial Control, Major Projects and Support Services.

Differences in third party and other miscellaneous costs in the front-office activities reflect differences in:

- Use of consultants
- Departmental travel and education

Reason 6: You paid less for back-office activities.

Your adjusted¹ cost per active member and annuitant of \$31.07 for back-office activities was below the peer average of \$46.43. Paying less for back-office activities decreased your total cost per member by \$15.36 relative to the peer average.

Back-office activities	Cost pe	er Active	Adjusted¹ Cost per				
	Member and		Active M	ember and			
	Annuitant		Ann	uitant			
	You	Peer Avg	You	Peer Avg			
Governance and Financial Control	\$4.34	\$9.85	\$5.21	\$10.39			
Major Projects	\$4.38	\$7.92	\$4.38	\$7.94			
IT Strategy, Database, Applications (excl. major	\$9.43	\$14.45	\$10.98	\$14.79			
projects)							
Actuarial, Legal, Audit, Other Support Services	\$9.42	\$13.37	\$10.51	\$13.31			
Support Services that Vary per FTE	\$3.51	\$6.95					
Total	\$31.07	\$52.54	\$31.07	\$46.43			

^{1.} To avoid double counting, back-office costs are adjusted for economies of scale and, cost per FTE for salaries and benefits, building and utilities, IT desktop and, human resources.

Differences in the adjusted cost per member for non-administration activities reflects differences in:

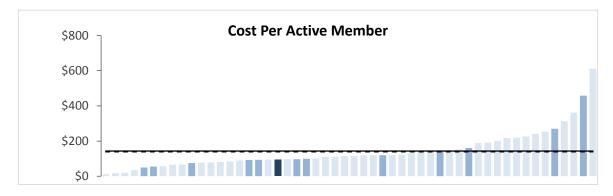
- How much you do. For example, some systems invest more in disaster recovery.
- IT capability
- IT investment cycle
- Plan complexity

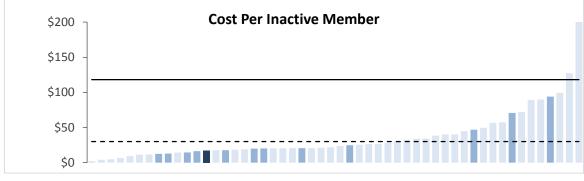
Refer to section '4 - Activity Costs' for detailed analysis and comparison of the sub-activities within each of the non-administration activities to gain insight into where you are doing and paying more and/or less.

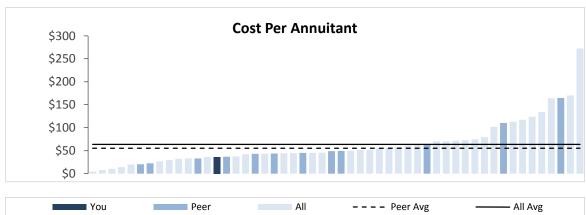
Cost per member type

An alternative way of analyzing cost performance is by member type. Comparisons of your pension administration cost per active, inactive and annuitant member to your peers and all participants are shown below. The methodology for determining these costs is shown on the following two pages.

Pension Administration Cost per Member by Type												
	You		Pee	r	All							
Member Type		Average	Max	Median	Min	Average	Max	Median	Min			
Active Member	\$94	\$139	\$458	\$97	\$49	\$143	\$612	\$115	\$11			
Inactive Member	\$18	\$30	\$94	\$20	\$13	\$118 \$4,446		\$23	\$2			
Annuitant	\$36	\$55	\$165	\$44	\$21	\$64	\$272	\$49	\$5			







Calculation of your cost per member type

The table below shows how your activity costs were attributed to each member type. The attribution methodology is described on the following page.

Calculat	ion of You	r Cost by M	ember Typ	e					
		\$000	s attribute	d to:	% attributed to:				
	Your								
	Costs in								
Activity	\$000s 1	Active	Inactive	Annuitant	Active	Inactive	Annuitant		
1. Member Transactions									
a. Pension Payments	687	0	0	687	0.0%	0.0%	100.0%		
b. Pension Inceptions	514	325	56	133	63.3%	10.9%	25.9%		
c. Withdrawals and Transfers-out	686	287	400	0	41.8%	58.2%	0.0%		
d. Purchases and Transfers-in	0	0	n/a	0	100.0%	n/a	0.0%		
e. Disability	1,539	1,539	0	0	100.0%	0.0%	0.0%		
2. Member Communication									
a. Call Center	1,444	754	74	617	52.2%	5.1%	42.7%		
b. Mail Room, Imaging	368	192	19	157	52.2%	5.1%	42.7%		
c. 1-on-1 Counseling	1,132	1,101	27	4	97.3%	2.4%	0.3%		
d. Presentations and Group Counseling	188	183	4	1	97.3%	2.4%	0.3%		
e. Written Pension Estimates	0	0	0	0	89.1%	10.9%	0.0%		
f. Mass Communication	569	419	82	68	73.6%	14.4%	12.0%		
3. Collections and Data Maintenance									
a. Data and Money from Employers	1,432	1,432	0	0	100.0%	0.0%	0.0%		
b. Service to Employers	0	0	0	n/a	100.0%	0.0%	n/a		
c. Data Not from Employers	642	250	213	179	38.9%	33.2%	27.8%		
4. Governance and Financial Control									
a. Financial Administration and Control	726	455	104	166	62.7%	14.4%	22.9%		
b. Board, Strategy, Policy	271	170	39	62	62.7%	14.4%	22.9%		
c. Government and Public Relations	96	60	14	22	62.7%	14.4%	22.9%		
5. Major Projects									
a. Amortization of non-IT Major Projects	30	19	4	7	62.7%	14.4%	22.9%		
b. Non-IT Major Projects (if you don't capitalize)	0	0	0	0	62.7%	14.4%	22.9%		
c. Amortization of IT Major Projects	1,073	673	154	246	62.7%	14.4%	22.9%		
d. IT Major Projects (if you don't capitalize)	0	0	0	0	62.7%	14.4%	22.9%		
6. Information Technology									
a. IT Strategy, Database, Applications (excl.	2,375	1,489	341	544	62.7%	14.4%	22.9%		
major projects)	'	,							
b. IT Desktop, Networks, Telecom	2,020	1,267	290	463	62.7%	14.4%	22.9%		
7. Support Services and Other	2,020	1,207	230	403	02.770	14.470	22.3/0		
a. Building and Utilities	1,015	636	146	233	62.7%	14.4%	22.9%		
b. Human Resources	315	197	45	72	62.7%	14.4%	22.9%		
c. Actuarial	228	143	33	52	62.7%	14.4%	22.9%		
d. Legal and Rule Interpretation	1,545	969	222	354	62.7%	14.4%	22.9%		
e. Internal and External Audit	286	179	41	66	62.7%	14.4%	22.9%		
f. Pay-as-you-go Benefits for Retired Staff	0	0	0	0	62.7%	14.4%	22.9%		
g. Other Support Services	312	196	45	72	62.7%	14.4% 14.4%	22.9% 22.9%		
Total Pension Administration Cost (A)	19,492	12,934	2,353	4,204	66.4%	12.1%	22.9%		
# of members by type (B)	13,432	138,542	2,333 135,270	113,298	00.4/0	12.170	21.070		
		\$93	133,270 \$17	\$37					
Cost per Member Type (A ÷ B)		253	\$1/	Ş 3/					

^{1.} The fully-attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from pension administration costs to ensure comparability. Refer to the second to last page of this section to see how the above costs reconcile to the administration costs provided on your survey.

Methodology for attributing activity costs to each member type

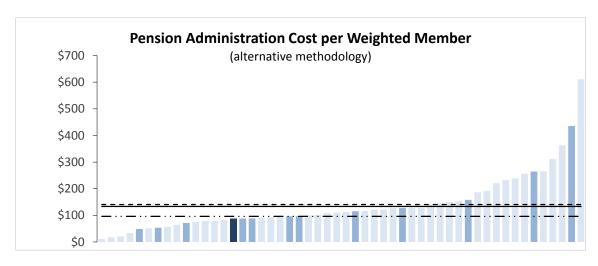
Activity	Attribution Method
1a. Pension Payments	100% annuitants
1b. Pension Inceptions	Pro rata based on weighted inceptions:
	• service retirements of active members weighted 100%
	• new inceptions annuitants weighted 50% + changes in gross caused by annuitants circumstances
	weighted 25%
	• retirements of inactive members weighted 70%
1c. Withdrawals and Transfers-out	Pro rata based on:
	active members weighted 70%
	• inactive members weighted 100%
1d. Purchases and Transfers-in	100% active members
1e. Disability	100% active members
2a. Call Center	Pro rata based on weighted membership:
za. can center	active members weighted 100%
	• annuitants weighted 100%
	• inactive members weighted 10%
2b. Mail Room, Imaging	
	Pre-rate between actives inactives and annuitants based on:
2c. 1-on-1 Counseling	Pro rata between actives, inactives and annuitants based on: • service retirements of active members weighted 100%
	retirements of active members weighted 100% retirements of inactive members weighted 10%
2d. Presentations and Group Counseling	• survivor inceptions of annuitants weighted 5%
2e. Written Pension Estimates	per 2c above Pro rata between active and inactive members based on:
ze. Written Pension Estimates	• service retirements of active members weighted 100%
2f. Mass Communication	• retirements of inactive members weighted 50%
21. Mass Communication	Pro rata based on weighted membership:
	• active members weighted 100%
	• annuitants weighted up to 30% (20% for website, etc + 10% if you send them newsletters)
	• inactive members weighted up to 30% (10% for website, etc. + 10% if you send them member
	statements annually + 10% if you send them newsletters)
3a. Data and Money from Employers	100% active members
3b. Service to Employers	100% active members
3c. Data Not from Employers	Pro rata based on weighted membership:
• •	• active members weighted up to 100% (33% because of divorce + 33% if you maintain their
	addresses + 33% if you collect contributions directly from members)
	• annuitants weighted up to 58% (25% because of divorce + 33% for maintaining their addresses)
	• inactive members weighted up to 58% (25% because of divorce + 33% if you maintain their
	addresses)
4a. Financial Administration and Control	Pro rata based on ratio of the sum of attributions to activities 1 to 3 for actives, annuitants and
	inactives using rules above.
4b. Board, Strategy, Policy	per 4a above
4c. Government and Public Relations	per 4a above
5a. Amortization of non-IT Major Projects	per 4a above
5b. Non-IT Major Projects (if you don't	per 4a above
5c. Amortization of IT Major Projects	per 4a above
5d. IT Major Projects (if you don't	per 4a above
capitalize)	
6a. IT Strategy, Database and Applications	per 4a above
(excl. major projects)	
6b. IT Desktop, Networks, Telecom	per 4a above
7a. Building and Utilities	per 4a above
7b. Human Resources	per 4a above
7c. Actuarial	per 4a above
7d. Legal and Rule Interpretation	per 4a above
7d. Legal and Rule interpretation 7e. Internal and External Audit	per 4a above
7f. Pay-as-you-go Benefits for Retired Staff	per 4a above
7g. Other Support Services	per 4a above
7g. Other Support Services	lhei 4a anove

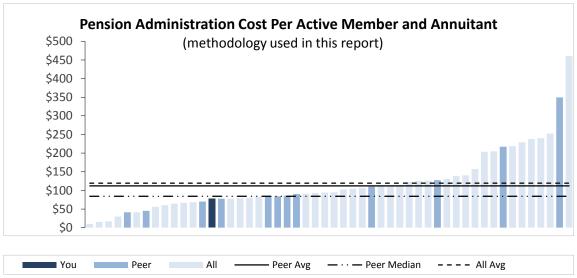
Cost per weighted member

In this report active members and annuitants is the divisor used when determining cost per member. But as the analysis on the previous three pages demonstrates, active members are more costly to administer than annuitants, and the cost to administer inactive members is greater than zero. Thus, using active members and annuitants as the divisor can bias results. It unfairly makes systems look higher cost if they have substantially higher than average proportions of inactive members and/or substantially lower than average proportions of annuitants.

Another way to compare total costs is on a per 'weighted member' basis where the weightings reflect the fact that costs vary by type of member. Your pension administration cost per weighted member was \$87.27. This was below the peer average of \$133.27. Members are weighted as follows: active members at 100%, inactive members at 25% and annuitants at 45%.

Relative rankings under both methodologies are shown in the graphs below.

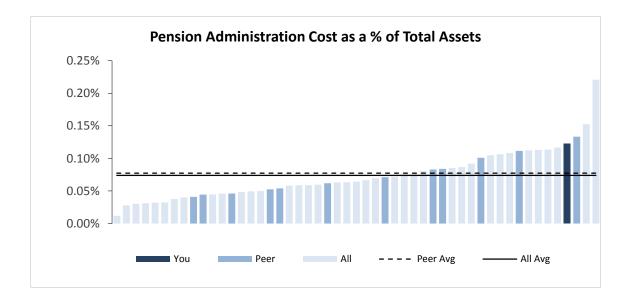




Cost as a % of total assets

An alternative way to compare total costs is as a percent of total pension assets. This ratio is particularly useful when trying to understand how pension administration costs compare to investment costs within the same system because investment costs tend to be quoted as a percentage of assets. This ratio is less useful when comparing between systems, as is done in the graph below, because the divisor, total assets, depends on plan rules (more generous plans will have more assets) and funded status.

Your pension's administration costs represented 0.12% of total assets (or 12 basis points). This was above the peer average of 0.08%.



Reconciliation to costs provided on the survey

The fully-attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from pension administration costs to ensure comparability. Your direct costs per the survey for activities 4, 5, 6 and 7 have been reduced by attributions to activity 1F that add up to \$4,888 thousand.

		You	r Costs in \$0	00s		\$s per
			Direct1	Indirect ²		Active
			Attribu-	Attribu-		Member
	Salaries &	Third Party	tions to	tions to		and
Activity	Benefits	& Other	1f & 1g	1f & 1g	Total	Annuitant
1. Member Transactions	Benefits	a other	11 0 18	11 00 18	Total	7 tilliarearre
a. Pension Payments	687	0			687	2.73
b. Pension Inceptions	514	0			514	2.04
c. Withdrawals and Transfers-out	686				686	2.73
d. Purchases and Transfers-in	080				080	0.00
e. Disability	1,539	0			1,539	6.11
f. Healthcare Administration	,		4,012	876	11,519	45.74
	4,134		•			
g. Optional and Third Party Administered Benefits 2. Member Communication	0	0	0	0	0	0.00
	1 444	0			1 444	F 74
a. Call Center	1,444				1,444	5.74
b. Mail Room, Imaging	368				368	1.46
c. 1-on-1 Counseling	1,132				1,132	4.49
d. Presentations and Group Counseling	188				188	0.75
e. Written Pension Estimates	0				0	0.00
f. Mass Communication	188	381			569	2.26
3. Collections and Data Maintenance		_				
a. Data and Money from Employers	1,432				1,432	5.69
b. Service to Employers	0				0	0.00
c. Data Not from Employers	642	0			642	2.55
4. Governance and Financial Control						
a. Financial Administration and Control	1,071			-345	726	2.88
b. Board, Strategy, Policy	400			-129	271	1.08
c. Government and Public Relations	141	0		-46	96	0.38
5. Major Projects						
a. Amortization of non-IT Major Projects	n/a	44	-13	-1	30	0.12
b. Non-IT Major Projects (if you don't capitalize)	0	0	0	0	0	0.00
c. Amortization of IT Major Projects	n/a	1,582	-468	-41	1,073	4.26
d. IT Major Projects (if you don't capitalize)	0	0	0	0	0	0.00
6. Information Technology						
a. IT Strategy, Database, Applications (excl. major projects)	3,030	472	-1,036	-92	2,375	9.43
b. IT Desktop, Networks, Telecom	1,631	1,348	-881	-78	2,020	8.02
7. Support Services and Other						
a. Building and Utilities	246	1,251	-443	-39	1,015	4.03
b. Human Resources	398	66	-137	-12	315	1.25
c. Actuarial	0	337	-100	-9	228	0.91
d. Legal and Rule Interpretation	1,558	722	-674	-60	1,545	6.14
e. Internal and External Audit	308	114	-125	-11	286	1.14
f. Pay-as-you-go Benefits for Retired Staff	0	n/a	0	0	0	0.00
g. Other Support Services	0	461	-136	-12	312	1.24
Total Administration	21,737	9,274	0	0	31,011	123.14
less:						
f. Healthcare Administration	-4,134	-2,497	-4,012	-876	-11,519	-45.74
g. Optional and Third Party Administered Benefits	0	0	0	0	0	0.00
Total Pension Administration					19,492	77.40

^{1.} Direct attributions are equal to your attributions of 5. Major Projects and 6a. IT Strategy, Database, Applications as per your survey plus CEM attributions of 6b through 7g to activities 1-4 pro rata based on FTE.

^{2.} Indirect attributions include: (i) CEM attributions of 4. Governance to activities 1-3 pro rata based on FTE and (ii) your direct attributions to 4. Governance attributed to activities 1-3 pro rata based on FTE.

Adjustments to peer data used in attributing cost differences

Peer averages used to explain the reasons why cost per member is different from the peer average are often adjusted. The adjustments are shown in the table below. Each adjustment is applied sequentially from left to right.

Adjustments to Peer Averages used in the Cost Model										
		Averages		Adjustm dou	Final Adjusted					
	Peer	Weighted	Inverse		Work-	Cost per	Average			
Reasons for differences in cost	Average	Average	Average	Scale	loads	FTE	Used			
Scale: Active Members and Annuitants	249,221		231,367				231,367			
Workloads: Transactions per member	40						40			
Productivity: transactions per front-office FTE	103,513	86,347		-1,702			84,644			
Costs that vary per FTE (salaries, etc.) per FTE	\$118,886	\$120,745					\$120,745			
Per member costs for:										
Third party & other costs in front-office	\$7.52	\$7.55		-\$0.07	-\$0.74		\$6.74			
Back office activities	\$52.54			-\$0.80		-\$5.30	\$46.43			

Scale Adjustments: The impact CEM attributes to economy of scale must be 'backed out' of peer data to avoid double counting in subsequent reasons for cost differences. Each peer is independently adjusted by a total amount equaling the expected cost difference due to scale between you and that peer. That adjustment is divided across three categories: productivity, third party & other costs in the front-office, and back-office costs. The share allocated to each is based on that peer's relative spending on front-office salaries and benefits (including support), front-office third party & other costs, and back-office costs, respectively.

Workload Adjustments: Third party & other costs in the front-office are linked to transaction volumes. The extent to which higher or lower transaction volumes drive higher or lower third party & other costs in front-office activities is already captured in the impact of higher or lower transaction volumes. To avoid double counting, before calculating the impact of higher/lower third party & other costs in the front-office, peer data is adjusted to reflect expected costs if they had your transaction volume.

Cost per FTE Adjustments: The impact of higher or lower cost per FTE in the back office is already captured in the 'salary' impact. To avoid double counting, it cannot also be included as part of 'paying more or less' for back-office activities. Peer back office activity costs are adjusted to reflect what they would be if each peer had your average back office costs per FTE.

Weighted Average vs. Average: Adding up the differences between your fund and the peer average for each category does not add up to the total difference between your fund and the peer average cost per member. This is because some reasons matter more for some peers then for others. For example, salary differences matter more in explaining cost differences between you and peers with higher FTE/member. In order to explain differences in total cost, many of the averages must be weighted. The weightings used are as follows:

Productivity (Inverse): weighted by workload per member.

Cost per FTE: weighted by FTE per member. Additionally re-weighted to reflect your front-office/back-office FTE ratio. Third party & other costs in front-office: weighted by workload per member.

Inverse: several of the reasons shown are actually the inverse of the true driver of cost differences. Economy of scale advantage/disadvantage, for example, is not associated with active members and annuitants, but with '1/active members and annuitants'. It is not intuitive for most readers to look at this inverse ratio, so the report graphs 'active members and annuitants'. However, it is the peer average of '1/active members and annuitants' that explains cost differences. CEM plots this value on the graph by calculating the peer average of '1/active members and annuitants' and then taking the inverse of that average. Similarly, 'FTE/transaction' is the relevant peer measure, not 'transactions/FTE'.

Activity Costs

This section compares:

- Direct costs by activity, before any attributions
- Factors that impact the direct costs of each activity such as salaries per direct FTE, transaction volumes per direct FTE, economies of scale, membership mix, and additional work per unit of activity volume.
- Fully-attributed costs by activity

Calculation of your activity costs

Calculation of Your Direct Activity Costs										
	Cost ² in		\$s per							
	\$000s	Activity Volume	Unit							
Activity ¹	(A)	(B)	(A / B)							
1. Member Transactions										
a. Pension Payments	687	113,298 annuitants	6.06							
b. Pension Inceptions	514	6,440 new payee inceptions	79.81							
c. Withdrawals and Transfers-out	686	4,826 withdrawals and transfers-out	142.23							
d. Purchases and Transfers-in	0	1,700 purchases and transfers-in	n/a							
e. Disability	1,539	704 disability applications	2,185.94							
2. Member Communication										
a. Call Center	1,444	220,911 calls and emails	6.54							
b. Mail Room, Imaging	368	75,869 incoming mail	4.85							
c. 1-on-1 Counseling	1,132	8,355 members counseled 1-on-1	135.48							
d. Presentations and Group Counseling	188	159 member presentations	1,182.39							
e. Written Pension Estimates	0	4,768 written estimates	n/a							
f. Mass Communication	569	251,840 active members and annuitants	2.26							
3. Collections and Data Maintenance										
a. Data and Money from Employers	1,432	138,542 active members	10.33							
b. Service to Employers	0	138,542 active members	0.00							
c. Data Not from Employers	642	387,110 actives, inactives, annuitants	1.66							
4. Governance and Financial Control ⁴										
a. Financial Administration and Control	726	251,840 active members and annuitants	2.88							
b. Board, Strategy, Policy	271	251,840 active members and annuitants	1.08							
c. Government and Public Relations	96	251,840 active members and annuitants	0.38							
5. Major Projects ⁴										
a. Amortization of non-IT Major Projects	30	251,840 active members and annuitants	0.12							
b. Non-IT Major Projects (if you don't capitalize)	0	251,840 active members and annuitants	0.00							
c. Amortization of IT Major Projects	1,073	251,840 active members and annuitants	4.26							
d. IT Major Projects (if you don't capitalize)	0	251,840 active members and annuitants	0.00							
6. Information Technology ⁴ a. IT Strategy, Database, Applications (excl.	2 275	251 840 active members and annuitants	9.43							
major projects)	2,375	251,840 active members and annuitants	9.43							
b. IT Desktop, Networks, Telecom	2,020	172 pension admin FTE	11,732.06							
7. Support Services and Other 4	2,020	172 pension admini 112	11,732.00							
a. Building and Utilities	1,015	172 pension admin FTE	5,894.67							
b. Human Resources	315	172 pension admin FTE	1,827.86							
c. Actuarial	228	251,840 active members and annuitants	0.91							
d. Legal and Rule Interpretation	1,545	251,840 active members and annuitants	6.14							
e. Internal and External Audit	286	251,840 active members and annuitants	1.14							
f. Pay-as-you-go Benefits for Retired Staff	0	172 pension admin FTE	0.00							
g. Other Support Services	312	251,840 active members and annuitants	1.24							
Total Pension Administration ³	19,492	251,840 active members and annuitants	77.40							
	10,702	and delive members and annulums	7710							

- 1. Refer to Appendix C for activity definitions.
- 2. Cost is 'direct cost' as per your survey. It is the sum of:
 - a) Salaries and benefits of all staff that directly perform the activity, plus related support and management staff that are in the same department. For example, the call center includes call and email customer service agents, trainers, analysts and managers.
 - b) Third-party and other non-staff, non-third-party-fee costs that can be directly attributed to the activities but that are not already included in the other activities listed. These other costs may include office supplies, travel, subscriptions, training, conferences.
- 3. The fully attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from total pension administration costs to ensure comparability.
- 4. Your directs costs for activities 4, 5, 6, and 7 have been reduced by attributions to 1f. Healthcare Administration that add up to \$4,888 thousand. Refer to the last page of this section for details.

Summary comparisons of activity costs by quartile breakdown

Comparisons of Direct Activity Costs ¹														
		Peer						All Participant						
Activity	Cost per:	You	Avg	Max	Q3	Med	Q1	Min	Avg	Max	Q3	Med	Q1	Min
1. Member Transactions														
a. Pension Payments	annuitant	6.06	7.41	12.67	10.61	6.57	4.21	2.81	10.77	58.15	12.00	8.06	4.20	0.49
b. Pension Inceptions	new payee inception	79.81	180.82	379.39	237.66	177.68	88.20	64.42	241.81	1,850.66	287.61	151.67	83.09	11.58
c. Withdrawals and Transfers-out	withdrawal & transfer-out	142.23	300.35	1,472.49	240.68	85.02	41.14	23.19	291.23	3,673.10	226.50	92.51	39.56	6.98
d. Purchases and Transfers-in	purchase & transfer-in	n/a	196.38	702.03	212.32	146.09	108.15	49.21	1,381.74	47,326.70	401.86	233.60	129.71	42.20
e. Disability	disability application	2,185.94	2,755.14	16,687.47	2,539.75	1,814.15	440.94	183.26	1,717.01	16,687.47	2,031.22	1,196.80	365.96	93.51
2. Member Communication														
a. Call Center	call & email	6.54	7.73	17.55	9.48	6.54	5.10	3.46	10.98	77.35	12.28	7.83	5.40	2.60
b. Mail Room, Imaging	incoming mail	4.85	9.75	47.72	6.84	4.85	4.56	1.02	10.12	58.80	10.36	5.53	3.04	0.59
c. 1-on-1 Counseling	member counseled 1-on-1	135.48	74.88	189.57	98.42	58.37	39.84	23.98	156.82	2,847.00	121.24	58.58	38.15	1.32
d. Presentations and Group Counseling	member presentation	1,182.39	1,464.33	4,628.57	1,671.36	1,297.09	1,090.37	173.07	28,330.69	1,218,862.46	1,689.98	1,164.77	755.57	173.07
e. Written Pension Estimates	written estimate	n/a	220.41	1,337.75	79.01	36.25	18.72	9.10	169.52	1,337.75	147.17	35.46	19.52	0.19
f. Mass Communication	active member & annuitant	2.26	3.75	11.01	4.44	2.50	2.19	1.46	3.71	11.01	4.65	3.58	2.00	0.19
3. Collections and Data Maintenance														
a. Data and Money from Employers	active member	10.33	9.06	25.40	10.33	7.03	3.63	2.47	9.76	42.85	11.27	6.63	3.04	0.26
b. Service to Employers	active member	0.00	2.96	6.96	4.03	2.89	1.86	0.00	3.43	16.72	4.59	2.67	1.31	0.00
c. Data Not from Employers	active, inactive & annuitant	1.66	1.30	3.89	1.30	0.85	0.76	0.22	1.22	6.38	1.68	0.80	0.28	0.00
4. Governance and Financial Control														
a. Financial Administration and Control	active member & annuitant	2.88	4.79	21.55	4.48	3.52	2.28	1.43	4.30	21.55	4.79	3.63	2.26	0.23
b. Board, Strategy, Policy	active member & annuitant	1.08	3.16	6.35	4.03	3.47	1.80	0.81	7.11	45.29	8.24	3.80	1.33	0.13
c. Government and Public Relations	active member & annuitant	0.38	1.90	6.35	1.74	1.33	0.71	0.28	2.57	18.75	2.82	1.32	0.39	0.00
5. Major Projects														
a. Amortization of non-IT Major Projects	active member & annuitant	0.12	0.01	0.12	0.00	0.00	0.00	0.00	0.05	1.51	0.00	0.00	0.00	0.00
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	1.34	12.33	1.15	0.00	0.00	0.00	0.98	16.57	0.15	0.00	0.00	0.00
c. Amortization of IT Major Projects	active member & annuitant	4.26	2.05	6.19	4.18	0.87	0.00	0.00	7.48	294.89	2.26	0.00	0.00	0.00
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	4.52	32.13	4.81	1.34	0.00	0.00	6.46	141.33	4.84	0.38	0.00	0.00
6. Information Technology														
a. IT Strategy, Database, Applications (excl. major projects)	active member & annuitant	9.43	14.45		18.21	12.79	8.16	3.05	17.96	55.56	25.11	14.14	7.71	2.59
b. IT Desktop, Networks, Telecom	pension admin fte	11,732	12,322	18,000	14,306	11,777	11,179	5,583	11,151	42,889	13,958	10,675	7,268	0
7. Support Services and Other														
a. Building and Utilities	pension admin fte	5,895	9,462	21,383	11,943	6,974	5,790	4,281	10,830	25,958	14,832	10,154	5,887	692
b. Human Resources	pension admin fte	1,828	2,961	7,928	3,660	2,038	1,828	1,475	3,649	8,472	6,539	2,859	1,746	0
c. Actuarial	active member & annuitant	0.91	1.22	2.51	1.70	1.04	0.89	0.00	2.10	9.96	2.51	1.34	0.77	0.00
d. Legal and Rule Interpretation	active member & annuitant	6.14	4.56	21.66	5.96	2.26	1.74	0.93	4.38	21.66	6.00	3.20	1.67	0.08
e. Internal and External Audit	active member & annuitant	1.14	3.25	21.22	2.35	1.54	1.30	0.59	2.50	21.22	2.68	1.52	0.99	0.07
f. Pay-as-you-go Benefits for Retired Staff	pension admin fte	0.00	723.53	3,885.31	815.87	0.00	0.00	0.00	307.52	3,932.24	0.00	0.00	0.00	0.00
g. Other Support Services	active member & annuitant	1.24	4.34	30.23	4.23	1.79	0.84	0.00	2.33	30.23	3.53	0.98	0.00	0.00
Total Pension Administration ²	active member & annuitant	77.40	112.22	349.21	110.06	84.19	77.40	41.22	119.52	460.23	132.88	94.51	75.54	10.09

^{1.} In this section we compare your costs to the peer median (i.e., the middle value or 50th percentile) because outlier data often skews averages in the direction of outlier values. Maximum and minimum values usually reflect unusual circumstances and are often associated with very low volumes.

^{2.} The fully attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from total pension administration costs to ensure comparability.

Activity cost history

Comparisons of Direct Activity Costs ¹													
		You				Peer Av	verage		All Participant Average				
Activity	Cost per:	2015	2014	2013	2012	2015	2014	2013	2012	2015	2014	2013	2012
1. Member Transactions													
a. Pension Payments	annuitant	6.06				7.57	8.41	7.45	8.95	10.55	12.76	12.30	12.21
b. Pension Inceptions	new payee inception	79.81				185.57	174.25	151.86	181.48	254.83	211.27	212.69	225.03
c. Withdrawals and Transfers-out	withdrawal & transfer-out	142.23				359.26	600.31	384.04	333.03	341.18	362.18	300.41	867.84
d. Purchases and Transfers-in	purchase & transfer-in	n/a				214.87	220.90	162.97	143.92	364.08	292.95	263.71	314.91
e. Disability	disability application	2,185.94				3,137.58	2,884.12	4,279.01	2,251.60	1,859.86	1,900.81	2,440.19	2,064.15
2. Member Communication													
a. Call Center	call & email	6.54				8.12	7.65	6.79	6.72	11.44	10.93	9.67	9.74
b. Mail Room, Imaging	incoming mail	4.85				11.05	9.77	8.37	8.25	10.35	7.81	10.43	50.08
c. 1-on-1 Counseling	member counseled 1-on-1	135.48				68.29	65.83	65.60	68.77	178.62	144.51	96.25	100.10
d. Presentations and Group Counseling	member presentation	1,182.39				1,505.52	1,822.98	1,543.38	1,393.34	1,848.68	1,437.13	2,795.23	3,616.63
e. Written Pension Estimates	written estimate	n/a				261.82	140.67	111.64	159.96	171.26	143.51	139.32	155.87
f. Mass Communication	active member & annuitant	2.26				4.06	4.10	4.38	4.51	3.97	3.92	4.25	4.07
3. Collections and Data Maintenance													
a. Data and Money from Employers	active member	10.33				9.68	9.68	9.91	7.77	11.02	10.57	9.99	9.01
b. Service to Employers	active member	0.00				3.34	3.29	3.00	3.03	3.90	3.34	3.17	3.12
c. Data Not from Employers	active, inactive & annuitant	1.66				1.33	1.20	1.01	1.14	1.16	1.02	1.26	1.25
4. Governance and Financial Control													
a. Financial Administration and Control	active member & annuitant	2.88				5.24	5.68	5.52	5.67	4.38	4.33	4.44	4.84
b. Board, Strategy, Policy	active member & annuitant	1.08				3.24	3.06	2.73	2.63	6.42	6.03	5.34	5.58
c. Government and Public Relations	active member & annuitant	0.38				2.04	2.00	1.89	1.83	2.31	2.22	1.87	1.87
5. Major Projects													
a. Amortization of non-IT Major Projects	active member & annuitant	0.12				0.00	0.00	0.00	0.00	0.04	0.05	0.05	0.01
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	0.00				1.52	2.10	1.88	1.57	1.14	1.26	0.83	1.03
c. Amortization of IT Major Projects	active member & annuitant	4.26				2.16	1.82	2.08	1.30	9.26	7.19	4.92	2.77
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00				5.39	6.72	5.63	5.46	7.57	7.53	6.93	5.04
6. Information Technology													
a. IT Strategy, Database, Applications (excl. major projects)	active member & annuitant	9.43				16.12	15.92	16.30	15.82	19.10	17.89	16.76	16.23
b. IT Desktop, Networks, Telecom	pension admin fte	11,732				11,980	11,081	9,715	8,988	11,177	10,213	9,438	9,894
7. Support Services and Other													
a. Building and Utilities	pension admin fte	5,895				8,812	7,815	7,758	12,181	11,178	10,078	10,323	11,565
b. Human Resources	pension admin fte	1,828				2,843	2,645	2,539	2,500	3,550	3,411	3,466	3,510
c. Actuarial	active member & annuitant	0.91				1.25	1.28	1.21	1.04	1.90	1.82	1.93	1.80
d. Legal and Rule Interpretation	active member & annuitant	6.14				4.75	4.56	4.33	4.17	4.26	4.03	4.20	3.83
e. Internal and External Audit	active member & annuitant	1.14				3.76	3.78	3.47	2.92	2.39	2.25	2.15	1.87
f. Pay-as-you-go Benefits for Retired Staff	pension admin fte	0.00				919.57	718.36	618.19	716.82	384.90	333.79	210.89	237.59
g. Other Support Services	active member & annuitant	1.24				4.92	4.04	2.82	2.75	2.43	2.21	1.85	1.90
Total Pension Administration ²	active member & annuitant	77.40				121.95	121.27	114.48	112.83	126.57	121.04	114.17	110.11

^{1.} Trend analysis is based on systems that have participated for 4-consecutive years (10 peers and 41 World systems). This ensures that trends are not caused by changes in the composition of the participants.

^{2.} The fully attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from total pension administration costs to ensure comparability.

CEM uses the following model to help explain differences in activity costs

Reasons for differences in activity costs

- 1. Salaries and benefits per direct FTE
- 2. Productivity: activity volume per FTE
- 3. Difference in 3rd party and other costs
- 4. Unexplained

Cost per Unit of Activity Volume

<u>Factors that impact '2. Productivity' that are</u> partially considered in this section

- a. Economies of scale (activity volumes)
- Additional work per unit of activity volume caused by (i) mix, (ii) complexity and (iii) secondary cost drivers

Factors that impact '2. Productivity' that are not considered in this section

- c. IT capability and on-line transactions
- d. Temporary fluctuations in activity volumes For example, if call center volumes fall temporarily by 50%, productivity falls by 50% and cost per call increases by 100%.
- e. Staff skills and productivity
- f. Service levels
- g. Organization design

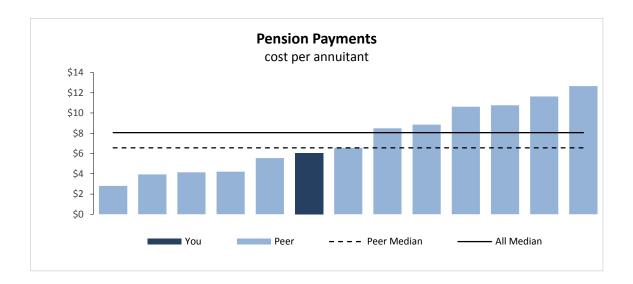
In this section, CEM quantifies the amount by which differences in the four reasons identified in the top box above impact your costs by calculating how your costs would change if you had the peer median salaries/ productivity/ third party and other costs. This methodology results in an unexplained amount, which is sometimes quite large, because:

- Peer salaries, productivity, and third party and other costs are not uniformly distributed. Often there are
 extreme outliers, especially for systems with relatively low volumes. Thus if you have outlier data for an
 activity, or several of your peers have extreme data, the unexplained amount may be large.
- Interaction between the three reasons is not quantified. For example, peers with higher productivity may also pay higher salaries. This offsetting impact between higher salaries and higher productivity is not quantified.

All comparisons are to the peer median (i.e., the middle value or 50th percentile). The median is used instead of the average because outlier data often skews averages in the direction of outlier values. Skewing is particularly acute with activity costs because participants with a low volume in an activity sometimes have very high costs per unit.

1A Pension Payments

Your pension payments cost per annuitant was \$6.06. This was \$0.51 below the peer median of \$6.57. The biggest reason why was that you had lower third party costs per annuitant.



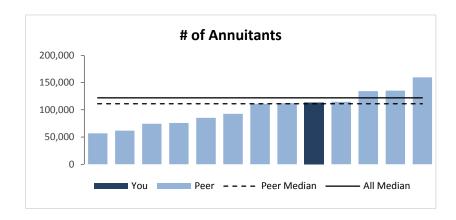
Reasons why your cost was below median	Comp	oarison Peer	Impact ¹ \$s per
	You	Median	Annuitant
Higher salaries and benefits per direct FTE	\$92,797	\$80,781	\$0.78
Fewer annuitants per direct FTE (productivity)	15,311	16,726	\$0.51
Lower third party costs per annuitant	\$0.00	\$1.21	-\$1.21
Unexplained ¹			-\$0.60
Cost per annuitant	\$6.06	\$6.57	-\$0.51

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

1A Pension Payments - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 113,298 annuitants was 2% higher than the peer median of 111,368.

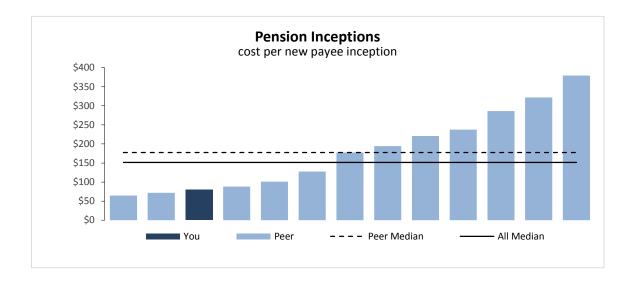


2. Additional pension payments work per annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Percentage of pensioners paid by check (as opposed to Electronic Funds Transfer)	5%	5%	neutral
Number of times per year you sent payment advices with your EFT payments detailing the gross payment and deductions	6.0	6.0	neutral

1B Pension Inceptions

Your pension inceptions cost per new payee inception was \$79.81. This was \$97.87 below the peer median of \$177.68. The biggest reason why was that you completed more new payee inceptions per direct FTE (productivity).



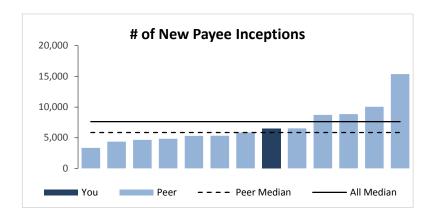
Reasons why your cost was below median	Comparison		Impact ¹
	Peer		\$s per New
	You	Median	Payee Inception
Higher salaries and benefits per direct FTE	\$90,175	\$76,658	\$11.96
More new payee inceptions per direct FTE (productivity)	1,130	483	-\$107.01
Lower third party costs per new payee inception	\$0.00	\$2.94	-\$2.94
Unexplained ¹			\$0.12
Cost per new payee inception	\$79.81	\$177.68	-\$97.87

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

1B Pension Inceptions - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 6,440 new payee inceptions was 10% higher than the peer median of 5,842.



2. Mix of activity volume

Inceptions to survivors tend to be less work than inceptions to active members because there are usually no payment option choices for survivors.

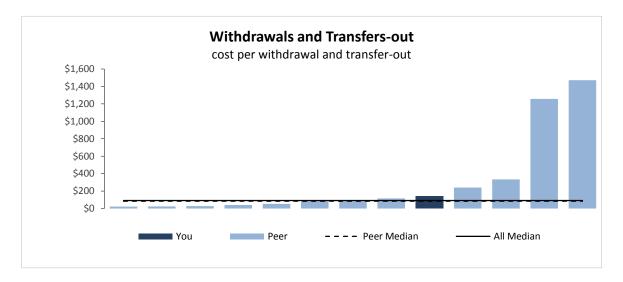
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Annuity inceptions: service retirement (actives)	73%	66%	
Annuity inceptions: service retirement (inactives)	18%	19%	
Annuity inceptions: disability retirement (actives)	4%	3%	
Annuity inceptions: survivor, partner, ex-partner, dependent	5%	11%	increasing
Total new payee inceptions	100%	100%	

3. Additional work per new payee inception

Causes of additional work	You	Peer Avg	Cost Impact
Proportion of inceptions to retiring active members based on estimates	20%	44%	decreasing
Formal appeals (non-disability) of inceptions as a % of new payee inceptions	0.25%	0.68%	decreasing
Changes in gross amount of annuity pensions paid as a result of changes in an individual annuitant's personal circumstances, as a % of new payee inceptions. (This work is included in the cost of inceptions. but not the volume).	109%	14%	increasing
Joint account reciprocity with other systems	Yes	54%Yes	increasing
Total complexity score (out of 100)	83	68	increasing

1C Withdrawals and Transfers-out

Your withdrawals and transfers-out cost per withdrawal and transfer-out was \$142.23. This was \$57.21 above the peer median of \$85.02. The biggest reason why was that you completed fewer withdrawals and transfers-out per direct FTE (productivity).



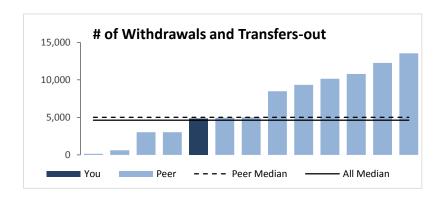
Reasons why your cost was above median	Comparison		Impact ¹
			\$s per
		Peer	Withdrawal and
	You	Median	Transfer-out
Higher salaries and benefits per direct FTE	\$92,757	\$79,873	\$19.76
Fewer withdrawals and transfers-out per direct FTE (productivity)	652	943	\$43.84
Lower third party costs per withdrawal and transfer-out	\$0.00	\$4.78	-\$4.78
Unexplained ¹			-\$1.61
Cost per withdrawal and transfer-out	\$142.23	\$85.02	\$57.21

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

1C Withdrawals and Transfers-out - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 4,826 withdrawals and transfers-out was 4% lower than the peer median of 5,018.



2. Mix of activity volume

Transfers-out tend to be more work than a withdrawal because they require co-ordination with another pension system and its rules.

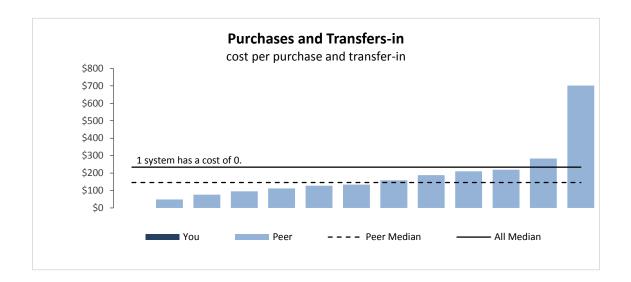
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Full refunds/ withdrawals/ commuted value/ lump sums	100%	97%	
Transfers-out	0%	3%	decreasing
Total withdrawals and transfers-out	100%	100%	

3. Additional work per withdrawal and transfer-out

Causes of additional work	You	Peer Avg	Cost Impact
Written estimates for withdrawals and transfers-out as a % of withdrawals and transfers-out	0%	305%	decreasing
Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	Yes	77%Yes	increasing

1D Purchases and Transfers-in

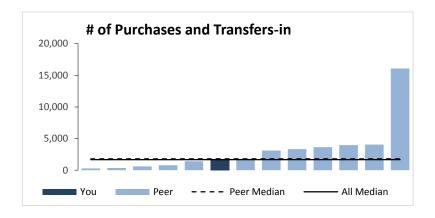
You have no cost for this activity. The peer median cost was \$146.09.



1D Purchases and Transfers-in - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 1,700 purchases and transfers-in was 6% lower than the peer median of 1,809.



2. Mix of activity volume

Individual transfers-in tend to be more work than a service credit purchase because they require co-ordination with another pension system and its rules.

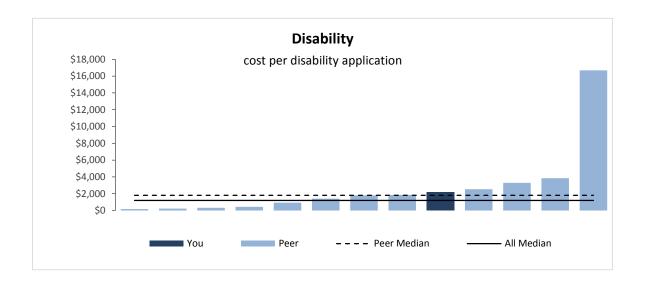
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Service credit purchases	100%	83%	
Upgrades to improve pensionable salary	0%	0%	
Upgrades to a new retirement formula	0%	5%	
Individual transfers-in from external defined benefit systems	0%	11%	decreasing
Members collectively transferred in	0%	0%	
Total purchases and transfers-in	100%	100%	

3. Additional work per purchase and transfer-in

Causes of additional work	You	Peer Avg	Cost Impact
Written estimates for purchases and transfers-in as a % of purchases and transfers-in	432%	230%	increasing
Installment payments permitted	Yes	85%Yes	increasing

1E Disability

Your disability cost per disability application was \$2,185.94. This was \$371.79 above the peer median of \$1,814.15. The biggest reason why was that you completed fewer disability applications per direct FTE (productivity).



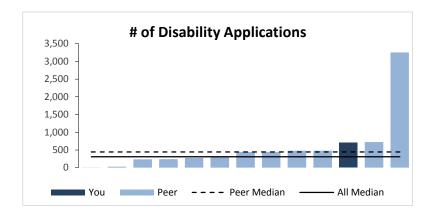
Reasons why your cost was above median	Comp	arison	Impact ¹
		Peer	\$s per Disability
	You	Median	Application
Lower salaries and benefits per direct FTE	\$73,281	\$78,666	-\$160.64
Fewer disability applications per direct FTE (productivity)	34	80	\$1,274.56
Lower third party costs per disability application	\$0.00	\$274.90	-\$274.90
Unexplained ¹			-\$467.23
Cost per disability application	\$2,185.94	\$1,814.15	\$371.79

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

1E Disability - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 704 disability applications was 59% higher than the peer median of 443.



2. Mix of activity volume

Processing long-term disability applications tends to be more work than short-term disability applications.

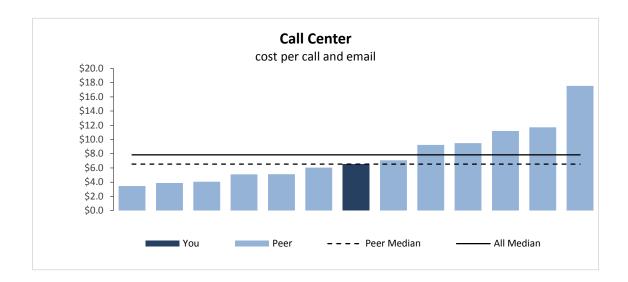
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Applications for short-term disability	0%	14%	
Applications for disability pensions/ long-term disability/			
disability lump sums	100%	86%	increasing
Total disability applications	100%	100%	

3. Additional work per disability application

Causes of additional work	You	Peer Avg	Cost Impact
Independent decision process (versus following the ruling of an			
	\/	4.000/\/	
employer or social security, etc)	Yes	100%Yes	neutral
Recertifications as a % of disability applications	4000/	4.5.40/	
Recentifications as a % of disability applications	108%	164%	decreasing
Recertifications as a % of disability recipients	00/	220/	
Receitifications as a 70 of disability recipients	9%	32%	decreasing
Medical exams paid for by you as a % of disability applications	3%	38%	docressing
Wedical exams paid for by you as a 70 of disability applications	3%	38%	decreasing
New member health reviews as a % of disability applications	0%	0%	neutral
New member nearth reviews as a 70 or disability applications	0,0	070	ileatiai
Disability decision appeals as a % of disability applications	18%	6%	increasing
,			-
Occupational disability as a % of disability applications	53%	15%	increasing
Disability complexity score (out of 100)	83	78	increasing

2A Call Center

Your call center cost per call and email was \$6.54. This was equal to the peer median.



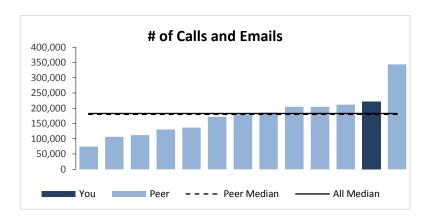
Reasons why your cost was equal to median	Comparison		Impact ¹
	Peer		\$s per Call and
	You	Median	Email
Lower salaries and benefits per direct FTE	\$64,482	\$77,279	-\$1.30
Fewer calls and emails per direct FTE (productivity)	9,862	11,315	\$0.84
Lower third party costs per call and email	\$0.00	\$0.23	-\$0.23
Unexplained ¹			\$0.69
Cost per call and email	\$6.54	\$6.54	\$0.00

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2A Call Center - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 220,911 calls and emails was 23% higher than the peer median of 180,001.

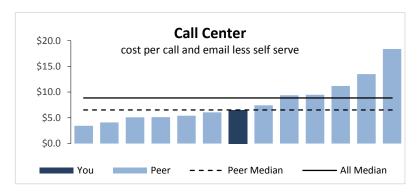


2. Mix of activity volume

Calls satisfied by self-serve options are close to zero cost, thus a lower proportion of self-serve calls result in an increased cost per call.

Activity Volume: % by Type	You	Peer Avg	Cost Impact
Incoming calls that reach service representatives	90%	83%	
Outgoing calls from service representatives	9%	9%	
Calls satisfied by self-serve options	0%	4%	increasing
Email queries from members	2%	5%	
Total calls and emails	100%	100%	

If self-serve calls were excluded from volumes, your cost per active member and annuitant would have been \$6.54. This would have been equal to the peer median cost of \$6.54.



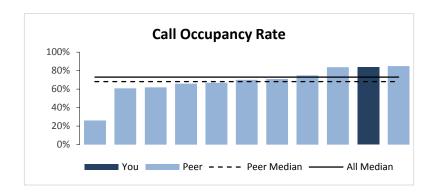
2A Call Center - Factors that impact productivity

continued

3. Additional work per call and email

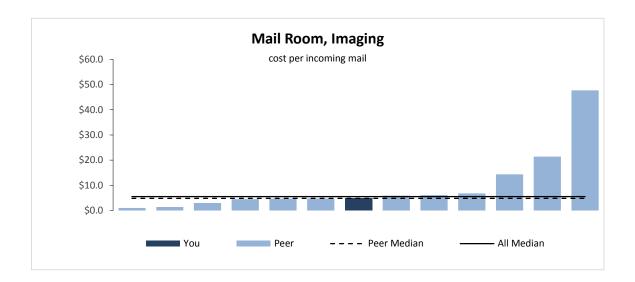
Causes of additional work	You	Peer Avg	Cost Impact
Average talk time of a member call (in seconds)	248	249	decreasing
Average after call work time (in seconds)	122	78	increasing
Do you regularly review staff responses to member calls?	Yes	92%Yes	increasing

Occupancy rate is frequently used to measure productivity in a call center. A high occupancy rate implies an efficient use of staff, and low occupancy, the opposite. However, if occupancy is too high, your staff may be overworked, leading to undesired call-handling behavior and high staff turnover rate. Call centers handling larger volumes of calls will also be more efficient than smaller ones because of economies of scale.



2B Mail Room, Imaging

Your mail room, imaging cost per incoming mail was \$4.85. This was equal to the peer median.



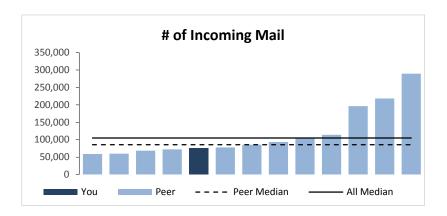
Reasons why your cost was equal to median	Comparison		Impact ¹
		Peer	\$s per Incoming
	You	Median	Mail
Lower salaries and benefits per direct FTE	\$47,141	\$55,727	-\$0.88
Fewer incoming mail per direct FTE (productivity)	9,727	13,220	\$1.28
Lower third party costs per incoming mail	\$0.00	\$0.27	-\$0.27
Unexplained ¹			-\$0.13
Cost per incoming mail	\$4.85	\$4.85	\$0.00

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2B Mail Room, Imaging - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 75,869 incoming mail was 11% lower than the peer median of 85,546.

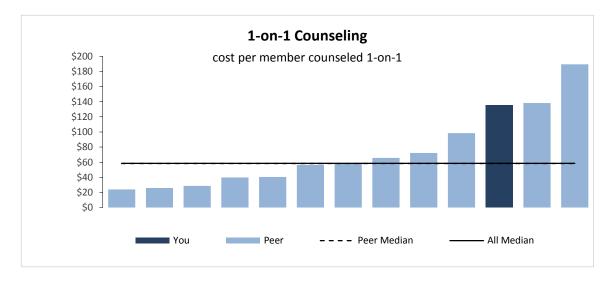


2. Additional work per incoming mail

Causes of additional work	You	Peer Avg	Cost Impact
Outgoing mail as a % of incoming mail (Outgoing mail is not			
included in activity volume. But it can add work if the mailroom is			
responsible for outgoing mail).	574%	580%	decreasing
Do you use imaging technology?	Yes	100%Yes	neutral
If yes:			
a) Do you keep images of ALL incoming member correspondence			
and submitted forms?	Yes	100%Yes	neutral

2C 1-on-1 Counseling

Your 1-on-1 counseling cost per member counseled 1-on-1 was \$135.48. This was \$77.11 above the peer median of \$58.37. The biggest reason why was that you completed fewer members counseled 1-on-1 per direct FTE (productivity).



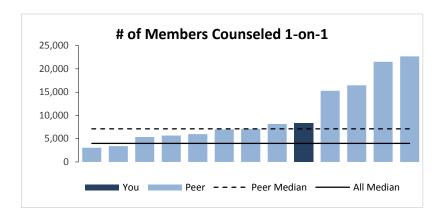
Reasons why your cost was above median	Comparison		Impact ¹
		Peer	\$s per Member
	You	Median	Counseled 1-on-1
Lower salaries and benefits per direct FTE	\$75,966	\$79,130	-\$5.64
Fewer members counseled 1-on-1 per direct FTE (productivity)	561	1,444	\$82.87
Lower third party costs per member counseled 1-on-1	\$0.00	\$1.59	-\$1.59
Unexplained ¹			\$1.48
Cost per member counseled 1-on-1	\$135.48	\$58.37	\$77.11

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2C 1-on-1 Counseling - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 8,355 members counseled 1-on-1 was 17% higher than the peer median of 7,125.



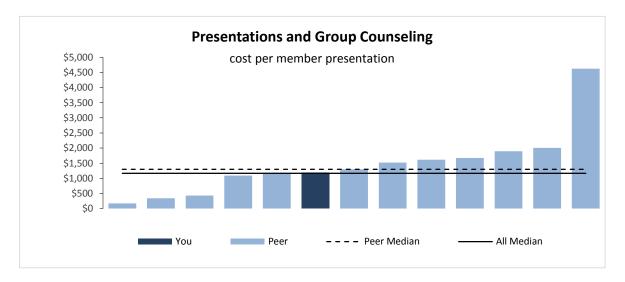
2. Mix of activity volume

Counseling in field locations is more costly than counseling in-house.

Activity Volume: % by Type	You	Peer Avg	Cost Impact
In-house	92%	75%	increasing
In the field	8%	23%	decreasing
Via teleconference	0%	2%	increasing
Total members counseled 1-on-1	100%	100%	

2D Presentations and Group Counseling

Your presentations and group counseling cost per member presentation was \$1,182.39. This was \$114.70 below the peer median of \$1,297.09. The biggest reason why was that you had lower third party costs per member presentation.



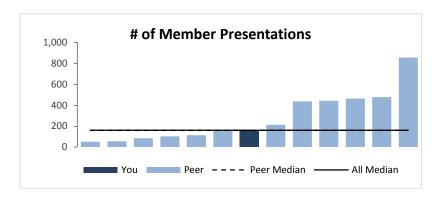
Reasons why your cost was below median	Comparison		Impact ¹
		Peer	\$s per Member
	You	Median	Presentation
Equal salaries and benefits per direct FTE	\$91,707	\$91,707	\$0.00
Equal member presentations per direct FTE (productivity)	78	78	\$0.00
Lower third party costs per member presentation	\$0.00	\$57.74	-\$57.74
Unexplained ¹			-\$56.96
Cost per member presentation	\$1,182.39	\$1,297.09	-\$114.70

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2D Presentations and Group Counseling - Factors that impact productivity

1. Economies of scale

Your 159 member presentations was the peer median. Thus the impact of economies of scale was minimized.



2. Mix of activity volume

Presentations and group counseling in field locations are more costly than in-house.

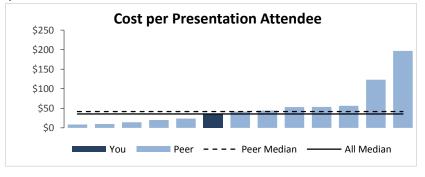
Presentations and Group Counseling by Location	You	Peer Avg	Cost Impact
In-house and webcast	29%	22%	
In the field	61%	64%	decreasing
Benefit fairs	10%	13%	
Total presentations and group counseling	100%	100%	

3. Additional work per member presentation

If you have more attendees per presentation, then the cost per attendee will be lower and the volume of member presentations per FTE will be higher. You had an average of 33 attendees per presentation, versus a peer average of 35.

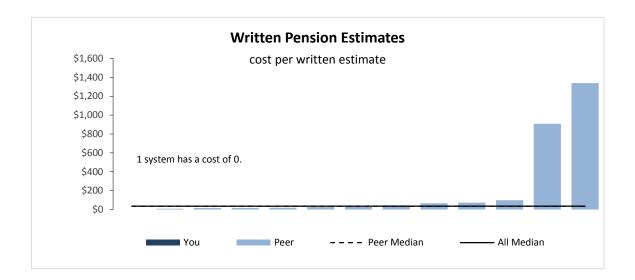
Causes of additional work	You	Peer Avg	Cost Impact
Average attendees per presentation	33	35	increasing

An alternative way of analyzing this activity's cost is on a 'per attendee' basis. Your cost per presentation attendee was \$36. This was below the peer median cost of \$42.



2E Written Pension Estimates

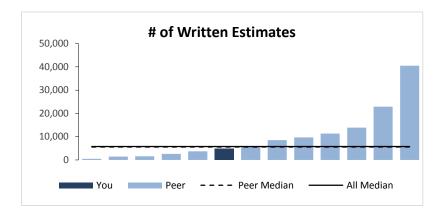
You have no cost for this activity. The peer median cost was \$36.25.



2E Written Pension Estimates - Factors that impact productivity

1. Economies of scale

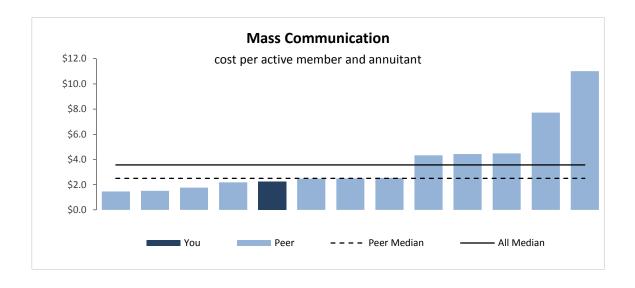
You had an economy of scale disadvantage. Your 4,768¹ written estimates was 15% lower than the peer median of 5,582.



1. Your number of estimates was adjusted because systems count estimates two different ways. When a member requests multiple different estimate scenarios, you count each scenario as an estimate whereas other systems count the 'multiple request' as a single estimate. Therefore, for comparability, we divided your total estimates of 14,303 by your average number of scenarios per request of 3.0.

2F Mass Communication

Your mass communication cost per active member and annuitant was \$2.26. This was \$0.24 below the peer median of \$2.50.



Reasons why your cost was below median	Comp	omparison Impa	
			\$s per Active
		Peer	Member and
	You	Median	Annuitant
Equal salaries and benefits per direct FTE	\$89,524	\$89,524	\$0.00
Fewer direct FTE per 10,000 active members and annuitants			
(productivity) ²	0.08	0.14	-\$0.50
Higher third party costs per active member and annuitant	\$1.51	\$1.46	\$0.05
Unexplained ¹			\$0.21
Cost per active member and annuitant	\$2.26	\$2.50	-\$0.24

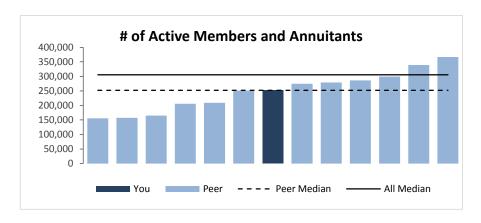
^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

^{2.} You had 2.1 mass communication FTE which was 52% less than the peer median of 4.4. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.08 mass communication FTE per 10,000 active members and annuitants was 40% less than the peer median of 0.14).

2F Mass Communication - Factors that impact productivity

1. Economies of scale

Your 251,840 active members and annuitants was the peer median. Thus the impact of economies of scale was minimized.

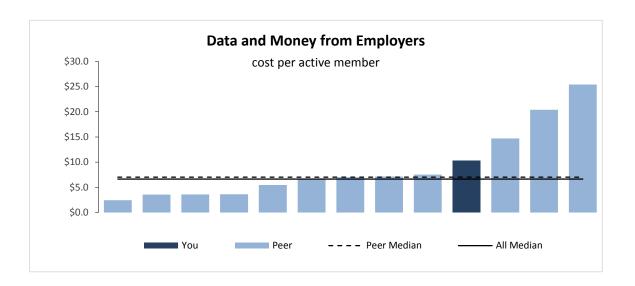


2. Additional mass communication work per active member and annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Website Service Score (out of 100) - Generally, the higher the			
score, the more time communication staff spends on design and			
maintenance of the site.	74	71	increasing
Times per year you send newsletters to:			
a) All members (active, inactive and annuitants)?	6.0	1.1	increasing
b) Active and inactive members?	0.0	0.2	decreasing
c) Active members and annuitants?	0.0	n/a	
d) Active members only?	0.0	2.3	decreasing
e) Inactive members only?	0.0	0.5	decreasing
f) Annuitants only?	0.0	2.2	decreasing
g) Age segments (i.e., under 35, 35-50, 50 plus)?	0.0	0.8	decreasing
h) Women only or men only?	0.0	n/a	
i) Employer or employment category (i.e., a different newsletter			
for teachers vs. bus drivers)?	0.0	2.5	decreasing
j) Other? (describe your other newsletter segments below)	0.0	2.2	decreasing
# of materials you publish in a language other than English	5.0	0.7	increasing
Times per year you send member statements to:			
a) Active members?	1.0	1.3	decreasing
b) Inactive members?	1.0	1.2	decreasing
% of member statements mailed to active members' homes	0%	67%	decreasing
Do you send:			
a) Welcome kits to new members?	Yes	92%Yes	increasing
b) Brochure summarizing benefits to active members every year?	No	23%Yes	decreasing

3A Data and Money from Employers

Your data and money from employers cost per active member was \$10.33. This was \$3.30 above the peer median of \$7.03. The biggest reason why was that you had more direct FTE per 10,000 active members (productivity)².



Reasons why your cost was above median	Comparison		Impact ¹
		Peer	\$s per Active
	You	Median	Member
Higher salaries and benefits per direct FTE	\$84,224	\$79,564	\$0.57
More direct FTE per 10,000 active members (productivity) ²	0.68	0.48	\$1.63
Lower third party costs per active member	\$0.00	\$0.17	-\$0.17
Unexplained ¹			\$1.27
Cost per active member	\$10.33	\$7.03	\$3.30

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

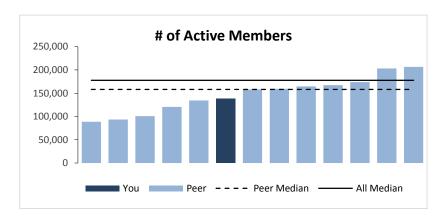
CEM uses active members as the divisor of this activity's cost. For systems with few employers, active members is the better predictor of cost whereas for systems with numerous employers the number of employers is the better predictor. Therefore, on the following page we show the number of employers as a divisor to provide an alternate cost comparison.

^{2.} You had 17.0 data and money from employers FTE which was 65% more than the peer median of 10.3. The percentage difference was more favorable on a 'per active members' basis (your 0.68 data and money from employers FTE per 10,000 active members was 40% more than the peer median of 0.48).

3A Data and Money from Employers - Factors that impact productivity

1. Economies of scale

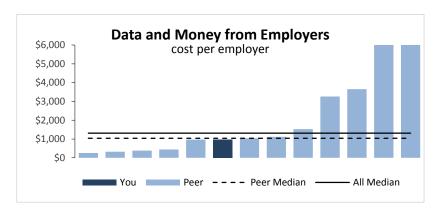
You had an economy of scale disadvantage. Your 138,542 active members was 12% lower than the peer median of 158,325.



2. Additional data and money from employers work per active member

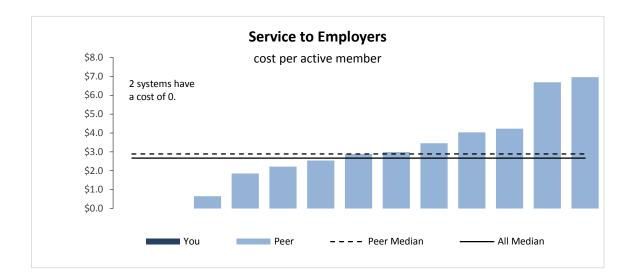
Causes of additional work	You	Peer Avg	Cost Impact
How many 'reconciliation points' (i.e., employers, state agencies,			
departments and/or service providers, etc.) do you deal with			
when:			
Validating member data? (as a % of active members)	0.9%	0.7%	increasing
• Reconciling money issues? (as a % of active members)	0.9%	0.6%	increasing
Active members whose data is provided in paper format (as a %			
of active members)	0.0%	0.0%	neutral
Status changes as a % of active members			
New active members	11.0%	9.2%	increasing
Re-hired inactive members	1.6%	2.7%	decreasing
Re-hired service retirees, if annuity stops	0.0%	0.0%	neutral
Active members exiting to inactive or withdrawal	6.3%	6.7%	decreasing
Active member service retirements	3.4%	3.1%	increasing

3. Alternate cost drivers: Data and money from employers cost per employer



3B Service to Employers

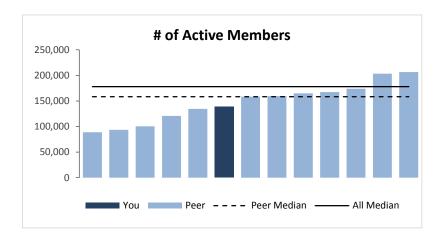
You have no cost for this activity. The peer median cost was \$2.89.



3B Service to Employers - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 138,542 active members was 12% lower than the peer median of 158,325.

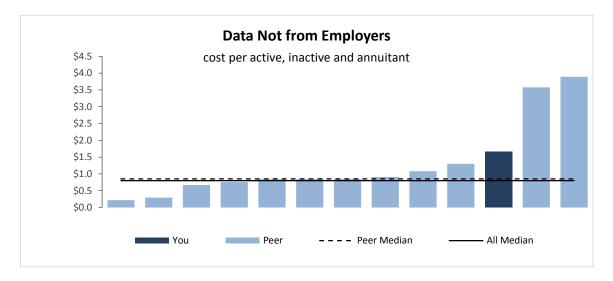


2. Additional service to employers work per active member

Causes of additional work	You	Peer Avg	Cost Impact
How many 'reconciliation points' (i.e., employers, state agencies, departments and/or service providers, etc.) do you deal with			
when:	0.00/	0.70/	
• Validating member data? (as a % of active members)	0.9%	0.7%	increasing
Reconciling money issues? (as a % of active members)	0.9%	0.6%	increasing
Service transactions a % of active members:			
a) Incoming calls from employers?	30.4%	12.4%	increasing
b) Email queries from employers?	8.1%	10.5%	decreasing
c) Conferences for employers?	0.0%	0.0%	neutral
d) Presentations given to employers such as orientation			
workshops or seminars on benefit changes, etc?	0.0%	0.0%	neutral
e) On-site reviews (or audits or inspections) of your employers?			
[For example, several systems perform reviews of their employers	0.1%	0.1%	neutral
that have problems providing data and or contributions on a			
timely basis to ensure that they are correctly fulfilling their			
obligations to their members.]	0.1%	0.1%	neutral
f) Other site visits to employers [exclude 'd' and 'e' above]?	0.0%	0.0%	neutral

3C Data Not from Employers

Your data not from employers cost per active, inactive and annuitant was \$1.66. This was \$0.81 above the peer median of \$0.85. The biggest reason why was that you had more direct FTE per 10,000 actives, inactives, annuitants (productivity)².



Reasons why your cost was above median	Comparison		Impact ¹
			\$s per Active,
		Peer	Inactive and
	You	Median	Annuitant
Higher salaries and benefits per direct FTE	\$80,275	\$77,545	\$0.06
More direct FTE per 10,000 actives, inactives, annuitants	0.32	0.16	\$1.29
(productivity) ²			
Lower third party costs per active, inactive and annuitant	\$0.00	\$0.05	-\$0.05
Unexplained ¹			-\$0.49
Cost per active, inactive and annuitant	\$1.66	\$0.85	\$0.81

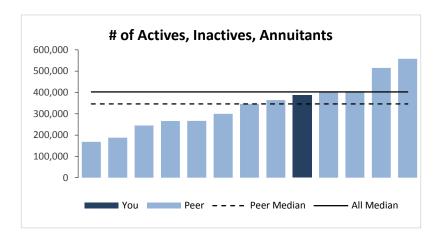
^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

^{2.} You had 8.0 data not from employers FTE which was 82% more than the peer median of 4.4. The percentage difference was less favorable on a 'per actives, inactives, annuitants' basis (your 0.32 data not from employers FTE per 10,000 actives, inactives, annuitants was 103% more than the peer median of 0.16).

3C Data Not from Employers - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 387,110 actives, inactives, annuitants was 12% higher than the peer median of 346,110.

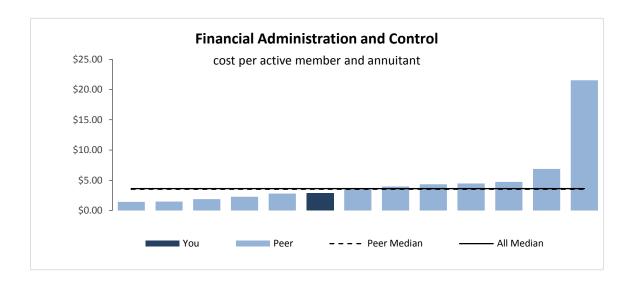


2. Additional data not from employers work per active, inactive and annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Do you actively keep track of the addresses of inactive members? If yes, inactive members as a % of actives, inactives, annuitants	Yes 53.7%	85%Yes 38.3%	increasing increasing
Status changes as a % of actives, inactives, annuitants: • Deaths • Non-death stops of annuities (i.e., dependent turns 21, term certain ends, etc.) [Exclude: re-hired annuitants]	0.3% 0.0%	0.2% 0.0%	increasing neutral

4A Financial Administration and Control

Your financial administration and control cost per active member and annuitant was \$2.88. This was \$0.64 below the peer median of \$3.52.



Reasons why your cost was below median	Comparison		Impact ¹
			\$s per Active
		Peer	Member and
	You	Median	Annuitant
Lower salaries and benefits per direct FTE	\$92,310	\$105,273	-\$0.60
More direct FTE per 10,000 active members and annuitants	0.46	0.38	\$0.74
(productivity) ²			
Lower third party costs per active member and annuitant	\$0.00	\$0.37	-\$0.37
Unexplained ¹			-\$0.42
Cost per active member and annuitant	\$2.88	\$3.52	-\$0.64

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

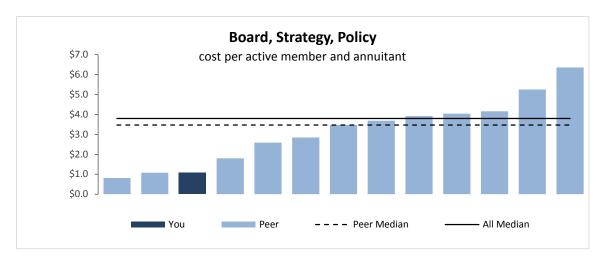
Usually, the biggest reason for differences in this activity's cost is the number of financial administration and control FTE per 10,000 members. Two key reasons for differences in FTE per 10,000 (and/or third party costs) are:

- Economies of scale Your 251,840 active members and annuitants was the peer median. Thus the impact of economies of scale was minimized.
- Doing more/less For example, some systems have more extensive budgeting than others.

^{2.} You had 11.6 financial administration and control FTE which was 73% more than the peer median of 6.7. The percentage difference was more favorable on a 'per active members and annuitants' basis (your 0.46 financial administration and control FTE per 10,000 active members and annuitants was 21% more than the peer median of 0.38).

4B Board, Strategy, Policy

Your board, strategy, policy cost per active member and annuitant was \$1.08. This was \$2.39 below the peer median of \$3.47.



Reasons why your cost was below median	Comparison		Impact ¹
			\$s per Active
		Peer	Member and
	You	Median	Annuitant
Equal salaries and benefits per direct FTE	\$148,111	\$148,111	\$0.00
Fewer direct FTE per 10,000 active members and annuitants	0.11	0.13	-\$0.39
(productivity) ²			
Lower third party costs per active member and annuitant	\$0.00	\$0.94	-\$0.94
Unexplained ¹			-\$1.06
Cost per active member and annuitant	\$1.08	\$3.47	-\$2.39

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

Usually, the biggest reason for differences in this activity's cost is the number of board, strategy, policy FTE per 10,000 members. Two key reasons for differences in FTE per 10,000 (and/or third party costs) are:

- Economies of scale Your 251,840 active members and annuitants was the peer median. Thus the impact of economies of scale was minimized. Activity volume is a very important driver of productivity and costs.
- Doing more/less For example, your 52 oversight meetings last year was above the peer median of 34.

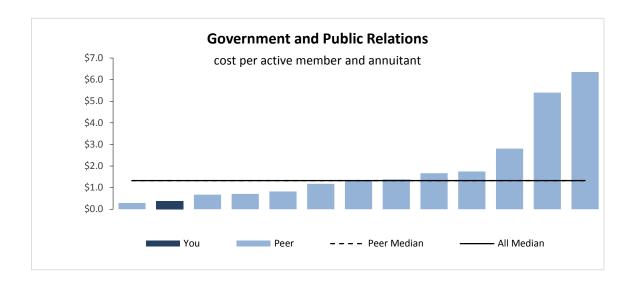
		Peer	
# of meetings last year, including sub-committees	You	Median *	Peer Avg
a) Board of Trustees?	17	26	21.2
b) Non-board legislative oversight committee?	10	7	6.6
c) Advisory committee?	1	2	1.3
d) Members' Council?	n/a	8	0.6
e) Other?	24	4	2.5
Total	52	34	32

^{*} Peer medians will not add to the total. Only averages are additive.

^{2.} You had 2.7 board, strategy, policy FTE which was 3% less than the peer median of 2.8. The percentage difference was more favorable on a 'per active members and annuitants' basis (your 0.11 board, strategy, policy FTE per 10,000 active members and annuitants was 20% less than the peer median of 0.13).

4C Government and Public Relations

Your government and public relations cost per active member and annuitant was \$0.38. This was \$0.95 below the peer median of \$1.33.



Reasons why your cost was below median	Comparison		Comparison		Impact ¹ \$s per Active
		Peer	Member and		
	You	Median	Annuitant		
Higher salaries and benefits per direct FTE	\$157,111	\$126,938	\$0.11		
Fewer direct FTE per 10,000 active members and annuitants (productivity) ²	0.04	0.08	-\$0.65		
Lower third party costs per active member and annuitant	\$0.00	\$0.16	-\$0.16		
Unexplained ¹			-\$0.25		
Cost per active member and annuitant	\$0.38	\$1.33	-\$0.95		

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

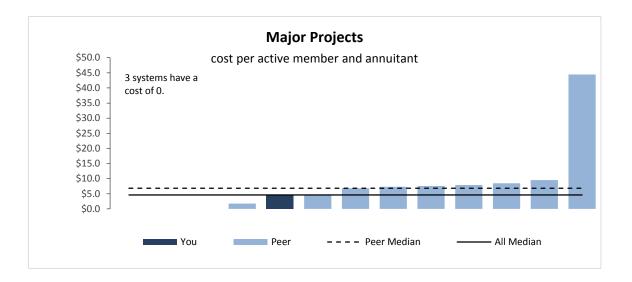
Usually, the biggest reason for differences in this activity's cost is the number of government and public relations FTE per 10,000 members. Two key reasons for differences in FTE per 10,000 (and/or third party costs) are:

- Economies of scale Your 251,840 active members and annuitants was the peer median. Thus the impact of economies of scale was minimized.
- Doing more/less For example, some systems do not have any government relations staff.

^{2.} You had 0.9 government and public relations FTE which was 57% less than the peer median of 2.1. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.04 government and public relations FTE per 10,000 active members and annuitants was 53% less than the peer median of 0.08).

5A-D Major Projects

Your major projects cost per active member and annuitant was \$4.38. This was \$2.48 below the peer median of \$6.86 This comparison includes both '5A and 5C Amortized major projects' plus '5B and 5D Major Projects (if you don't capitalize)'.

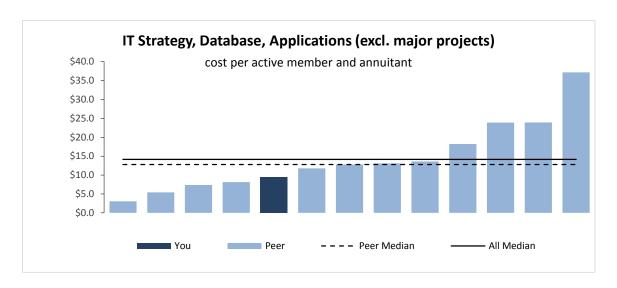


Reasons for differences in the cost for major projects include:

- Economies of scale Scale is particularly important for major projects because of the substantial fixed costs of developing the IT infrastructure necessary for pension systems to operate. Your 251,840 active members and annuitants was the peer median. Thus the impact of economies of scale was minimized. But your largest peers still had more members over which to spread their major projects costs and your smallest peers had fewer members.
- Plan complexity It is more expensive to develop and maintain IT systems for plans with complex rule sets. Your total plan complexity score was 83 out of 100. This was above the peer median of 68.
- IT investment cycle If you recently upgraded your IT systems, then your amortization costs will be higher than a system that has not upgraded their IT systems since 1990.
- Capitalization Systems that do not capitalize major project costs will have more variable major project costs. Systems that only recently started capitalizing major projects costs will have lower costs than systems that have been capitalizing for a long time.

6A IT Strategy, Database Management and Applications (excl. major projects)

Your IT strategy, database, applications (excl. major projects) cost per active member and annuitant was \$9.43. This was \$3.36 below the peer median of \$12.79.



Reasons why your cost was below median	Comparison		Comparison		Impact ¹ \$s per Active
		Peer	Member and		
	You	Median	Annuitant		
Lower salaries and benefits per direct FTE	\$112,209	\$118,735	-\$0.70		
More direct FTE per 10,000 active members and annuitants ²	1.07	0.79	\$3.13		
Lower third party costs per active member and annuitant	\$1.87	\$3.31	-\$1.43		
Unexplained ¹			-\$4.36		
Cost per active member and annuitant	\$9.43	\$12.79	-\$3.36		

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

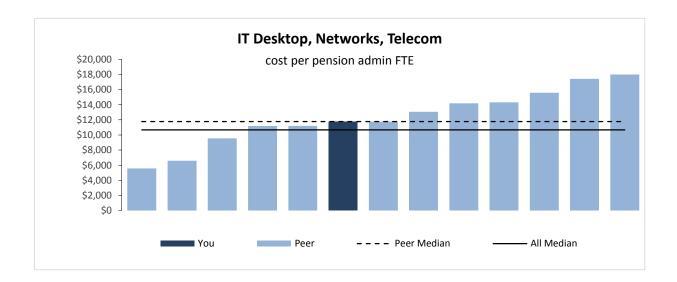
Three key reasons for differences in FTE per 10,000 (and/or third party costs) are:

- Economies of scale Scale is particularly important for IT strategy, database, applications (excl. major projects) because of the substantial fixed costs of maintaining the IT infrastructure necessary for pension systems to operate. Your 251,840 active members and annuitants was the peer median. Thus the impact of economies of scale was minimized. But your largest peers still had more members over which to spread their IT strategy, database, applications (excl. major projects) costs and your smallest peers had fewer members.
- Plan complexity It is more expensive to develop and maintain IT systems for plans with complex rule sets. Your total plan complexity score was 83 out of 100. This was above the peer median of 68.
- IT investment cycle

^{2.} You had 27.0 IT strategy, database, applications (excl. major projects) FTE which was 36% more than the peer median of 19.8. The percentage difference was more favorable on a 'per active member and annuitant' basis (your 1.07 FTE per 10,000 active member and annuitant was 35% more than the peer median of 0.79) because you had an economy of scale equal to.

6B IT Desktop, Networks, Telecom

Your it desktop, networks, telecom cost per pension admin FTE was \$11,732.06. This was \$45.16 below the peer median of \$11,777.22.



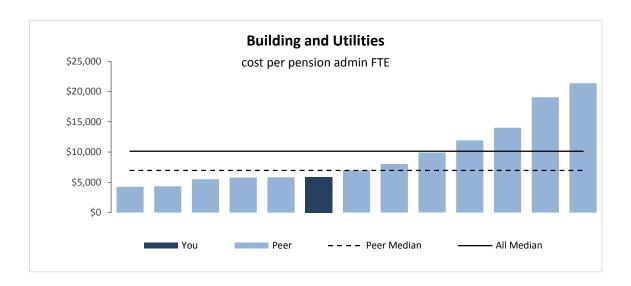
Reasons why your cost was below median	Comp	Comparison	
	You	Peer Median	Admin FTE
Lower salaries and benefits per direct FTE	\$116,525	\$117,946	-116
More direct FTE per 100 pension admin FTE ²	8.13	5.72	2,810
Higher third party costs per pension admin FTE	\$7,831	\$7,383	448
Unexplained ¹			-3,188
Cost per pension admin FTE	\$11,732	\$11,777	-\$45

^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

^{2.} You had 14.0 IT desktop, networks, telecom FTE which was 66% more than the peer median of 8.4. The percentage difference was more favorable on a 'per pension admin FTE' basis (your 8.13 FTE per 100 pension admin FTE was 42% more than the peer median of 5.72) because you had an economy of scale advantage.

7A Building and Utilities

Your building and utilities cost per pension admin FTE was \$5,894.67. This was \$1,078.95 below the peer median of \$6,973.62.



Reasons why your cost was below median	Comparison		Impact ¹
		Peer	\$s per Pension
	You	Median	Admin FTE
Lower salaries and benefits per direct FTE	\$61,425	\$82,545	-\$491
More direct FTE per 100 pension admin FTE ²	2.32	0.71	\$988
Higher third party costs per pension admin FTE	\$7,268	\$6,892	\$377
Unexplained ¹			-\$1,954
Cost per pension admin FTE	\$5,895	\$6,974	-\$1,079

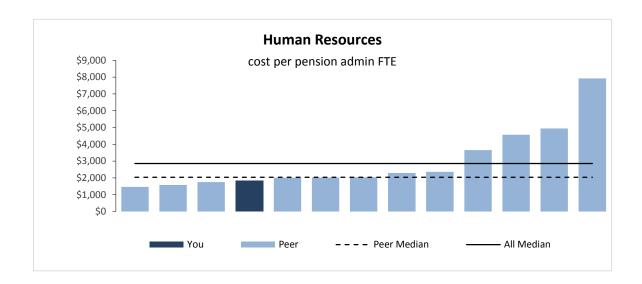
- 1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).
- 2. You had 4.0 building and utilities FTE which was 300% more than the peer median of 1.0. The percentage difference was more favorable on a 'per pension admin FTE' basis (your 2.32 FTE per 100 pension admin FTE was 225% more than the peer median of 0.71) because you had an economy of scale advantage.

The biggest reason for differences in building cost is usually differences in third party and other costs (i.e., rent, lease, building and office depreciation, utilities). Reasons why these costs differ include:

- Quality of the building
- Non-market pricing on property provided by the government
- Cost environment
- Square feet of workspace per FTE

7B Human Resources

Your human resources cost per pension admin FTE was \$1,827.86. This was \$210.38 below the peer median of \$2,038.24.



Reasons why your cost was below median	Comp	arison	Impact ¹
		Peer	\$s per Pension
	You	Median	Admin FTE
Equal salaries and benefits per direct FTE	\$99,575	\$99,575	\$0.00
Fewer direct FTE per 100 pension admin FTE ²	2.32	2.34	-\$18.22
Lower third party costs per pension admin FTE	\$383	\$487	-\$103.71
Unexplained ¹			-\$88.07
Cost per pension admin FTE	\$1,828	\$2,038	-\$210.00

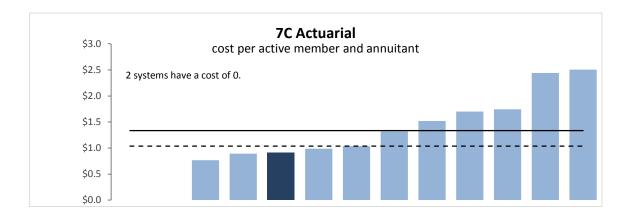
^{1.} Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

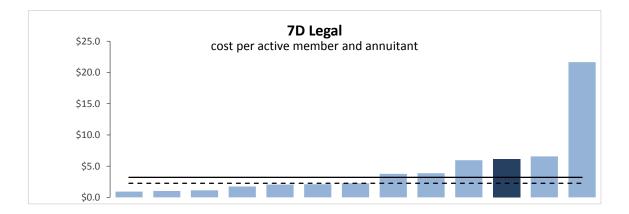
^{2.} You had 4.0 human resources FTE which was 1% more than the peer median of 3.9. The difference changes direction and was more favorable on a 'per pension admin FTE' basis (your 2.32 human resources FTE per 100 pension admin FTE was 0.8% less than the peer median of 2.34) because you had an economy of scale advantage.

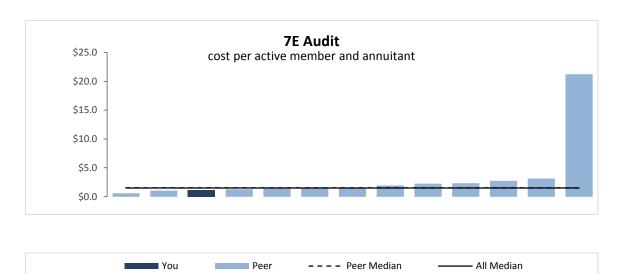
7C-E Professional Costs

Your cost for activity:

- Your actuarial cost per active member and annuitant was \$0.91. This was \$0.13 below the peer median of \$1.04.
- Your legal cost per active member and annuitant was \$6.14. This was \$3.88 above the peer median of \$2.26.
- Your audit cost per active member and annuitant was \$1.14. This was \$0.40 below the peer median of \$1.54.

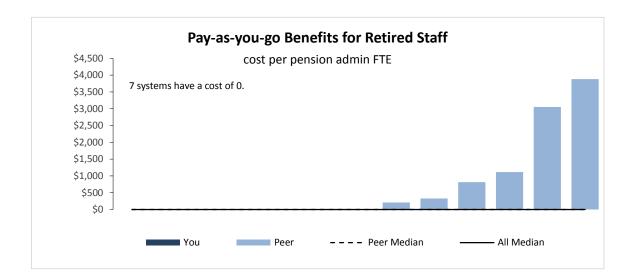






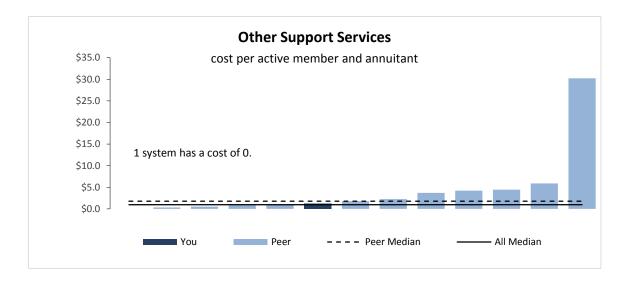
7F Pay-as-you-go benefits for retired staff

You have no cost for this activity. The peer median cost was \$0.00.



7G Other Support Services

Your other support services cost per active member and annuitant was \$1.24. This was \$0.55 below the peer median of \$1.79. The biggest reason why was that you had higher third party costs per active member and annuitant.



Three key reasons for differences in FTE per 10,000 (and/or third party costs) are:

- Economies of scale Scale is particularly important for other support services because of the substantial fixed costs of maintaining the IT infrastructure necessary for pension systems to operate. Your 251,840 active members and annuitants was the peer median. Thus the impact of economies of scale was minimized. But your largest peers still had more members over which to spread their other support services costs and your smallest peers had fewer members.
- Plan complexity It is more expensive to develop and maintain IT systems for plans with complex rule sets. Your total plan complexity score was 83 out of 100. This was above the peer median of 68.
- IT investment cycle

Alternative comparison: Fully-attributed front-office activity costs

An alternative way of analyzing and comparing activity costs is by attributing 100% of back office costs (i.e., governance and financial control, major projects, IT, and support services and other) to the front office activities. Front office activities are the activities that come in contact with clients or employers, such as paying pensions, pension inceptions, and member calls. The methodology used to calculate fully-attributed costs is shown on the following page.

In 2010, CEM shifted the focus of its analysis from fully-attributed activity costs to direct activity costs because:

- Front-office managers did not recognize or trust the fully attributed costs.
- It is impossible to ensure consistency in attribution methodology for IT and major project costs. Therefore, differences in fully-attributed costs often reflected differences in attribution methodology.
- Reasons for differences in fully-attributed costs were often hidden and repetitive. For example, unusually high building and utilities costs could become a recurring reason for differences in all fully-attributed costs.

	Fully-Attributed Activity Costs (\$s per unit of activity volume)													
			Peer								All			
Activity	Cost per:	You	Avg	Max	Q3	Med	Q1	Min	# Avg	Max	Q3	Med	Q1	Min #
1. Member Transactions														
a. Pension Payments	annuitant	12	16	30	16	15	12	7 1	3 26	133	29	19	12	3 52
b. Pension Inceptions	new payee inception	159	480	933	693	416	246	159 1	745	7,832	938	486	270	78 52
c. Withdrawals and Transfers-out	withdrawal and transfer-out	279	782	3,533	587	234	89	55 13	946	16,383	615	260	112	0 50
d. Purchases and Transfers-in	purchase and transfer-in	0	500	1,690	554	421	282	0 1	5,912	233,911	1,246	587	346	0 50
e. Disability	disability application	4,838	5,244	30,232	4,838	3,053	1,221	467 1	3,864	30,232	4,643	2,778	1,042	202 35
2. Member Communication														
a. Call Center	call and email	16	20	50	26	14	14	11 1	30	136	39	25	14	0 52
b. Mail Room, Imaging	incoming mail	14	24	91	22	15	11	3 1	3 25	168	26	15	8	1 52
c. 1-on-1 Counseling	member counseled 1-on-1	294	172	370	235	145	104	63 13	343	5,582	294	165	96	0 48
d. Presentations and Group Counseling	member presentation	2,329	3,282	10,879	3,639	2,765	2,329	375 1	113,973	5,506,113	4,102	2,538	1,530	0 50
e. Written Pension Estimates	written estimate	0	561	3,690	206	78	41	0 1	466	3,827	322	113	41	0 52
f. Mass Communication	active member and annuitant	3	7	19	11	4	4	3 1	3 8	25	11	7	4	0 52
3. Collections and Data Maintenance														
a. Data and Money from Employers	active member	21	26	102	23	17	12	7 1	3 28	186	31	20	9	1 52
b. Service to Employers	active member	0	7	16	9	7	5	0 1	3 9	62	12	7	4	0 52
c. Data Not from Employers	active, inactive and annuitant	3	4	10	6	2	2	1 1	3	15	5	2	1	0 52
Total Pension Administration	active member and annuitant	77	112	349	110	84	77	41 1	3 120	460	133	95	76	10 52
Non-Pension														
1f. Healthcare Administration	annuitant	102	30	131	52	0	0	0 1	3 12	131	5	0	0	0 44
1g. Optional and Third Party	active member	0	4	34	3	0	0	0 1	3 4	34	4	0	0	0 44
Administered Benefits														

Calculation of fully-attributed front-office costs

(Fully-attributed costs are compared in the alternative comparison on the previous page)

				Attr	ibutions ¹		Fu	lly-Attrib	uted
		D		6 I T	C.I.				
		Direct		6a IT	6b +	4			Cost per
	Divoct	Costs (Salaries		Strategy,	7a - g	4.			Active Member
	Direct Staff	+ Third	5. Major	DB Mgmt, Appli-	Services	& Financial		Cost per	and
Activity	(# FTE)	Party)	Projects		and Other	Control	\$000s	unit ³	Annuitant
1. Member Transactions	(11112)	i di cy j	. rojecto	000.01.0		001101	φσσσσ	arii c	7 1111101101110
a. Pension Payments	7.4	687	65	140	336	118	1,345	12	5.34
b. Pension Inceptions	5.7	514	50	108	259	91	1,021	159	4.06
c. Withdrawals and Transfers-out	7.4	686	65	140	336	118	1,345	279	5.34
d. Purchases and Transfers-in	0.0	0	0	0	0	0	0	0	0.00
e. Disability	21.0	1,539	184	396	953	334	3,406	4,838	13.52
f. Healthcare Administration	55.0	6,631	481	1,036		876	· '	102	45.74
g. Optional and Third Party Administered Benefits	0.0	0,031	0	0 0	0	0	0	0	0.00
2. Member Communication	0.0					0			0.00
a. Call Center	22.4	1,444	196	423	1,017	357	3,436	16	13.64
b. Mail Room, Imaging	7.8	368	69	148	354	124	1,062	14	4.22
c. 1-on-1 Counseling	14.9	1,132	131	281	676	237	2,457	294	9.76
d. Presentations and Group Counseling	2.1	188	18	39	93	33	370	2,329	1.47
e. Written Pension Estimates	0.0	0	0	0	0	0	0	2,329	0.00
f. Mass Communication	2.1	569	18	39	95	33	754	3	3.00
3. Collections and Data Maintenance	2.1	303	10	33	93	33	734		3.00
a. Data and Money from Employers	17.0	1.432	148	319	772	271	2,942	21	11.68
b. Service to Employers	0.0	1,432	0	319	0	0	2,342	0	0.00
	8.0	642	70	150	363	127	_	3	5.37
c. Data Not from Employers 4. Governance and Financial Control	8.0	042	70	130	303	127	1,353	3	5.57
a. Financial Administration and Control	11.6	1,071	101	218	526	-1,916	0		
	2.7	400	23	50	123	-1,916	0		
b. Board, Strategy, Policy c. Government and Public Relations	0.9	141	8	50 17	41	-207	0		
5. Major Projects	0.9	141	0	1/	41	-207	U		
	n/a	44	-44				0		
a. Amortization of non-IT Major Projectsb. Non-IT Major Projects (if you don't capitalize)	0.0	44					0		
c. Amortization of IT Major Projects									
, ,	n/a	1,582 0	· '				0		
d. IT Major Projects (if you don't capitalize) 6. Information Technology	0.0	U	0				U		
<u>.</u>	27.0	2 502		2 502			0		
a. IT Strategy, Database, Applications (excl. major projects)		3,502		-3,502	2.070				
b. IT Desktop, Networks, Telecom	14.0	2,979			-2,979		0		
7. Support Services and Other	4.0	4 407			4 407				
a. Building and Utilities	4.0	1,497			-1,497		0		
b. Human Resources	4.0	464			-464		0		
c. Actuarial	0.0	337			-337		0		
d. Legal and Rule Interpretation	16.0	2,280			-2,280		0		
e. Internal and External Audit	3.0	422			-422		0		
f. Pay-as-you-go Benefits for Retired Staff	n/a	0			0		0		
g. Other Support Services	0.0	461	_		-461	_	0		422.55
Total Administration	254.0	31,011	0	0	0	0	31,011		123.14
less: ²							44 =		4= = :
1f. Healthcare Administration							-11,519		-45.74
1g. Optional and Third Party Administered Benefits							0		0.00
Total Pension Administration							19,492		77.40

^{1.} Attributions of activities 5a-d and 6a are per your survey responses. Attributions of activities 6b and 7a-g are pro rata based on direct FTE (unless you provided the attributions yourself). Similarly attributions of activity 4 is done pro rata based on direct FTE.

^{2.} The fully-attributed costs of activities 1f and 1g are excluded from pension administration costs to ensure comparability.

^{3.} Units vary by activity. Units are described in the second column on the previous page. © 2016 CEM Benchmarking Inc.

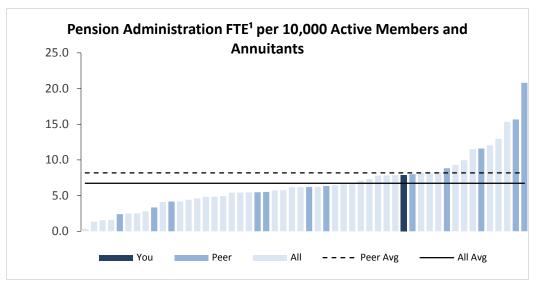
Staff Costs and Productivity

This section includes comparisons to your peers, in aggregate and by activity, of:

- Full-time-equivalent staff (FTE) per member
- Salary and benefits per FTE
- Productivity (transaction volumes per FTE)

Total FTE

Differences in the number of full-time-equivalent staff (FTE) used to serve members is a key reason for differences in costs between similarly organized systems. Generally the more FTE you use to serve members, the higher your costs. You had 7.90 pension administration FTE¹ per 10,000 members. This was below the peer average of 8.17.



1. Pension administration FTE excludes: FTE whose salaries are being capitalized, FTE administering healthcare and FTE administering optional benefits.

Reasons for differences in total FTEs used to serve members include differences in:

- Outsourcing. For example, if you outsource legal or actuarial work, you will have fewer FTE than systems that do this work using internal staff.
- Transactions volumes, which in turn are caused by differences in:
 - Services provided, for example, some plans do not offer financial planning
 - Member mix and demographics, for example, active members generate more transactions than inactive members
- Productivity (i.e., transaction volumes per FTE) which in turn is caused by differences in:
 - Service levels, for example, shorter wait times may require more staff
 - Staff skills and productivity
 - Organizational effectiveness
 - Economies of scale
 - Plan rule complexity
 - IT capability

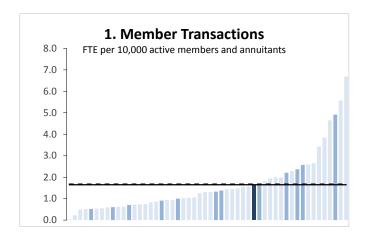
FTE by activity

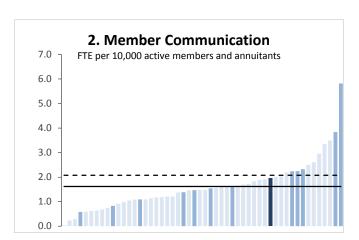
	<u>#</u>	# of Direct ¹ FT	<u>E</u>		E per 10,000	
					oers and Ann	
Activity	You	Peer Avg	All Avg	You	Peer Avg	All Avg
1. Member Transactions						
a. Pension Payments	7.4	5.3	10.6	0.29	0.23	0.28
b. Pension Inceptions	5.7	14.6	25.0	0.23	0.59	0.60
c. Withdrawals and Transfers-out	7.4	7.0	8.4	0.29	0.29	0.32
d. Purchases and Transfers-in	0.0	4.2	10.4	n/a	0.20	0.36
e. Disability	<u>21.0</u>	<u>7.8</u>	<u>7.7</u>	0.83	0.38	<u>0.21</u>
Total Member Transactions	41.5	39.0	62.2	1.65	1.70	1.77
2. Member Communication						
a. Call Center	22.4	18.1	24.7	0.89	0.73	0.65
b. Mail Room, Imaging	7.8	10.2	10.3	0.31	0.44	0.28
c. 1-on-1 Counseling	14.9	8.2	6.5	0.59	0.32	0.21
d. Presentations and Group Counseling	2.1	2.9	6.8	0.08	0.12	0.14
e. Written Pension Estimates	0.0	4.8	6.8	n/a	0.26	0.23
f. Mass Communication	<u>2.1</u>	<u>5.3</u>	<u>7.0</u>	0.08	0.22	0.21
Total Member Communication	49.3	49.5	62.0	1.96	2.09	1.71
3. Collections and Data Maintenance						
a. Data and Money from Employers	17.0	14.9	19.0	0.68	0.63	0.54
b. Service to Employers	0.0	4.7	7.6	n/a	0.22	0.20
c. Data Not from Employers	8.0	<u>4.9</u>	<u>6.5</u>	0.32	0.20	0.17
Total Collections and Data Maintenance	25.0	24.5	33.0	0.99	1.05	0.91
4. Governance and Financial Control						
a. Financial Administration and Control	11.6	9.5	12.3	0.46	0.44	0.36
b. Board, Strategy, Policy	2.7	3.8	8.0	0.11	0.16	0.24
c. Government and Public Relations	<u>0.9</u>	3.0	2.9	0.04	0.13	0.11
Total Governance and Financial Control	15.2	16.2	23.1	0.60	0.73	0.70
5. Major Projects						
a. Amortization of non-IT Major Projects ²	n/a	n/a	n/a	n/a	n/a	n/a
b. Non-IT Major Projects (if you don't capitalize)	0.0	2.3	1.7	n/a	0.33	0.18
c. Amortization of IT Major Projects ²	n/a	n/a	n/a	n/a	n/a	n/a
d. IT Major Projects (if you don't capitalize)	0.0	<u>5.9</u>	<u>5.8</u>	<u>n/a</u>	0.63	0.39
Total Major Projects	0.0	8.2	7.5	0.00	0.97	0.57
6. Information Technology						
a. IT Strategy, Database, Applications (excl. major projects)	27.0	23.1	24.1	1.07	0.92	0.79
b. IT Desktop, Networks, Telecom	<u>14.0</u>	<u>10.2</u>	<u>7.9</u>	<u>0.56</u>	0.43	0.29
Total Information Technology	41.0	33.3	32.0	1.63	1.36	1.07
7. Support Services and Other						
a. Building and Utilities	4.0	4.8	4.4	0.16	0.19	0.13
b. Human Resources	4.0	4.7	5.4	0.16	0.20	0.18
c. Actuarial	0.0	0.5	1.7	n/a	0.04	0.06
d. Legal and Rule Interpretation	16.0	6.1	7.8	0.64	0.29	0.26
e. Internal and External Audit	3.0	3.9	4.5	0.12	0.20	0.15
f. Pay-as-you-go Benefits for Retired Staff	n/a	n/a	n/a	n/a	n/a	n/a
g. Other Support Services	0.0	<u>3.0</u>	<u>4.7</u>	<u>n/a</u>	<u>0.19</u>	0.20
Total Support Services and Other	27.0	22.9	28.4	1.07	1.10	0.98
Total Pension Admin FTE (excludes below)	199.0	193.6	248.2	7.90	8.99	7.71
FTE whose salaries are being capitalized	0.0	4.1	15.4	n/a	0.34	0.45
1f. Healthcare Administration	55.0	10.3	4.6	2.18	0.89	0.59
1g. Optional and Third Party Administered Benefits	0.0	1.5	2.3	n/a	0.14	0.15
16. Optional and Till a larty Naministered Benefits	0.0	1.5		, u	0.1.	

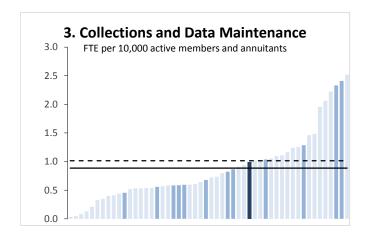
^{1.} Direct staff includes staff directly performing the activity, plus related support and management staff that are in the same department and directly support the activity.

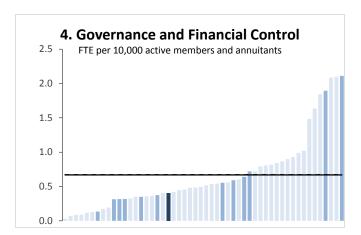
^{2.} We are unable to identify the historic FTE embedded in activities 5a. and 5c. amortization of major projects.

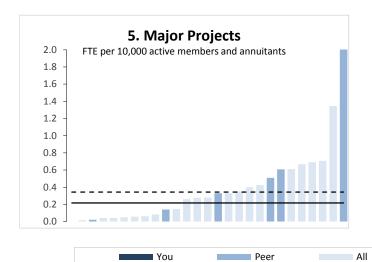
FTE per 10,000 members by activity aggregates

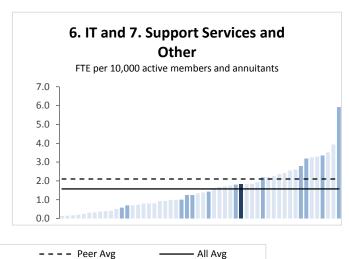








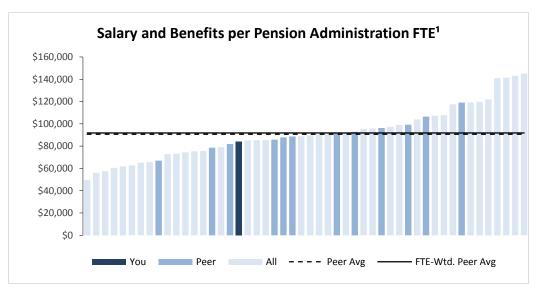




Salaries and benefits

Your salaries and benefits per pension administration FTE¹ was \$84,151. This was 7% below the peer average of \$90,754.

If you want to understand how salaries and benefits impact relative cost performance, the more relevant average is the FTE-weighted peer average because salary differences matter more for peers with more FTEs. Your salaries and benefits per pension administration FTE of \$84,151 was below the FTE-weighted peer average of \$91,875.



1. Pension administration FTE excludes: FTE whose salaries are being capitalized, FTE administering healthcare and FTE administering optional benefits. In order to avoid double counting when explaining why your total administration costs differ from the peer average, it also excludes the salaries and FTE of activity 6b. IT Desktop, Networks, Telecom, 7a. Building and Utilities, 7b. Human Resources, and, 7f. Payas-you-go Benefits for Retired Staff.

Salaries and benefits include compensation (salary, wages, overtime, bonuses), benefits (pensions, healthcare), related payroll taxes, and charges paid by the employer (as opposed to the employee). Salary and benefits per FTE may differ because of:

- Cost environment
- Staff with different skills and experience. Different activities require different skills sets. Therefore, salaries and benefits are compared by activity on page 7 of this section.
- Outsourcing. For example, if you outsource higher paying jobs by using consultants (i.e., legal, actuarial) your average salary might be lower.

Other costs that tend to vary per FTE include activities: 6b. IT Desktop, Networks, Telecom, 7a. Building and Utilities, 7b. Human Resources, and, 7f. Pay-as-you-go Benefits for Retired Staff. These costs are compared in Section 4 - Activity Costs.

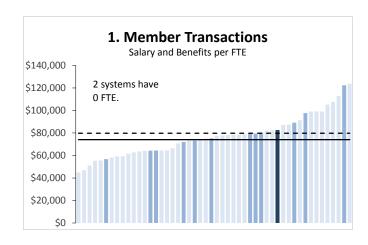
Salaries and benefits per FTE by activity

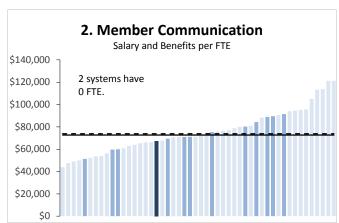
	Sa	alaries and Benef	its	Salaries and Benefits as a % of					
		per FTE		Direct Activity Cost					
Activity	You	Peer Avg	All Avg	You F	Peer Avg	All Avg			
1. Member Transactions									
a. Pension Payments	\$92,797	\$82,997	\$75,885	100%	70%	59%			
b. Pension Inceptions	\$90,175	\$78,654	\$73,298	100%	94%	86%			
c. Withdrawals and Transfers-out	\$92,757	\$79,708	\$78,471	100%	92%	86%			
d. Purchases and Transfers-in	n/a	\$78,107	\$79,334	n/a	93%	91%			
e. Disability	<u>\$73,281</u>	<u>\$83,786</u>	<u>\$76,538</u>	100%	72%	76%			
	\$82,554	\$79,800	\$74,143						
2. Member Communication									
a. Call Center	\$64,482	\$72,377	\$68,763	100%	94%	85%			
b. Mail Room, Imaging	\$47,141	\$60,249	\$65,027	100%	84%	65%			
c. 1-on-1 Counseling	\$75,966	\$80,457	\$73,966	100%	92%	87%			
d. Presentations and Group Counseling	\$91,707	\$87,818	\$84,528	100%	86%	79%			
e. Written Pension Estimates	n/a	\$77,466	\$72,416	n/a	94%	91%			
f. Mass Communication	\$89,524	\$88,069	\$90,179	33%	54%	49%			
	\$67,411	\$73,848	\$72,735						
3. Collections and Data Maintenance									
a. Data and Money from Employers	\$84,224	\$82,636	\$76,869	100%	95%	82%			
b. Service to Employers	n/a	\$88,180	\$83,387	n/a	91%	82%			
c. Data Not from Employers	\$80,27 <u>5</u>	<u>\$78,024</u>	\$72,17 <u>1</u>	100%	91%	79%			
. ,	\$82,960	\$83,128	\$76,583						
4. Governance and Financial Control	. ,	. ,	. ,						
a. Financial Administration and Control	\$92,310	\$102,676	\$101,958	100%	82%	79%			
b. Board, Strategy, Policy	\$148,111	\$151,477	\$169,674	100%	71%	65%			
c. Government and Public Relations	\$157,11 <u>1</u>	\$131,908	\$134,116	100%	83%	70%			
	\$106,059	\$118,977	\$126,088						
5. Major Projects	1 7	,-	, -,						
a. Amortization of non-IT Major Projects	n/a	n/a	n/a	n/a	n/a	n/a			
b. Non-IT Major Projects (if you don't capitalize)	n/a	\$88,034	\$99,210	n/a	55%	67%			
c. Amortization of IT Major Projects	n/a	n/a	n/a	n/a	n/a	n/a			
d. IT Major Projects (if you don't capitalize)	<u>n/a</u>	\$132,527	\$117,86 <u>5</u>	n/a	54%	50%			
	n/a	\$119,714	\$118,318	, ۵	0.70	3070			
6. Information Technology	, ۵	Ψ====,,,=.	Ψ110,010						
a. IT Strategy, Database, Applications (excl. major projects)	\$112,209	\$122,280	\$113,636	87%	72%	44%			
b. IT Desktop, Networks, Telecom	\$116,525	\$127,996	\$106,817	55%	48%	30%			
2.11 2 cs. (csp) (vector of the csp)	\$113,683	\$120,104	\$110,214	3370	.0,0	3070			
7. Support Services and Other	¥110,000	Ψ120,10 .	Ψ110)11.						
a. Building and Utilities	\$61,425	\$80,028	\$78,748	16%	13%	9%			
b. Human Resources	\$99,575	\$101,319	\$110,115	86%	79%	66%			
c. Actuarial	n/a	\$153,192	\$142,144	0%	17%	30%			
d. Legal and Rule Interpretation	\$97,363	\$133,132	\$121,318	68%	70%	67%			
e. Internal and External Audit	\$102,700	\$124,045 \$125,507	\$121,516	73%	70% 58%	57%			
f. Pay-as-you-go Benefits for Retired Staff	3102,700 n/a				100%	100%			
g. Other Support Services	· .	n/a \$76.241	n/a ¢04 629	n/a					
g. Other Support Services	<u>n/a</u>	\$76,241 \$115,715	\$94,638 \$107,737	0%	39%	55%			
Total Pension Administration ¹	\$92,959	\$115,715	\$107,737	760/	660/	F20/			
	\$85,821	\$92,680	\$92,424	76%	66%	53%			
Total Pension Admin excluding activities 6b, 7a, 7b, and 7f ²	\$84,151	\$90,754	\$87,910	82%	72%	58%			

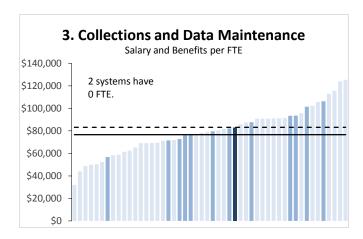
^{1.} Pension administration FTE excludes: FTE whose salaries are being capitalized, FTE administering healthcare and FTE administering optional benefits.

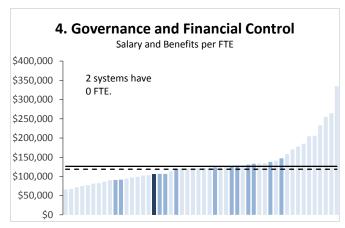
^{2.} Section 3 'Total Costs' and the Executive Summary use the FTE-weighted peer average of \$91,875 to explain cost differences. It is used to explain cost differences because salary differences matter more for peers with more FTEs. To avoid double counting items quantified separately in the cost model, the FTE-weighted average also: (i) excludes activities 6b, 7a, 7b and 7f, and, (ii) weights front and back office salaries per your ratio of front to back office FTE.

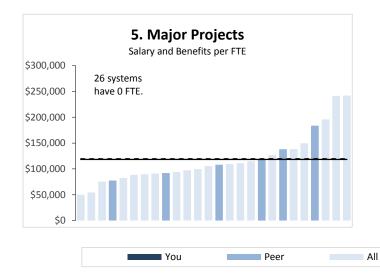
Salaries and benefits per FTE by activity aggregates

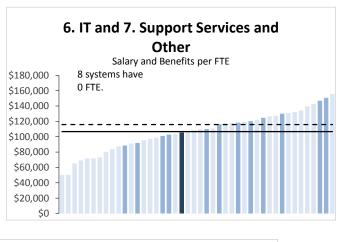










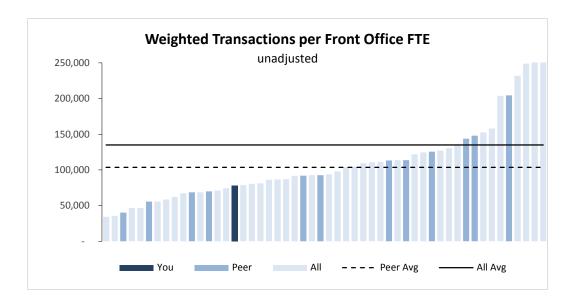


- All Avg

--- Peer Avg

Productivity

Total productivity is defined as the number of weighted transactions per front-office, full-time-equivalent staff (FTE). Your productivity was 78,366 per front-office FTE. This was below the in-house peer average of 103,513.



Weighted transaction volumes equal the cost-weighted average of front-office activity volumes. It is a measure of work. Details of the calculation are shown in Section 6 Transaction Volumes. Front office activities are the activities that come in contact with clients or employers, such as paying pensions, pension inceptions and member calls. It excludes support activities such as Governance and Financial Control, Major Projects and Support Services.

Differences in productivity are caused by differences in:

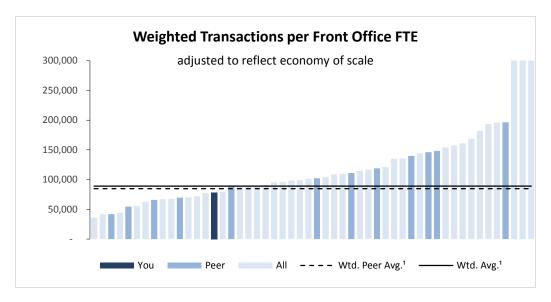
- Economies of scale (see next page)
- Staff skills and staff productivity
- IT capability / online transactions
- Service levels, for example, shorter wait times may require more staff
- Complexity of plan rules
- Using more consultants and third parties to do part of the work
- Projects
- Organization design

It is important to emphasize that total productivity is not a measure of staff productivity; staff productivity is however a component of total productivity.

Productivity - adjusted for economies of scale

Productivity is impacted by economies of scale. CEM research shows that, on average, smaller systems have lower productivity than larger systems. In section 3 Total Costs when we explain reasons for differences between your cost and the peer average, we quantify the impact of economies of scale separately from the impact of productivity. Thus we need to adjust the productivity of your peers for economies of scale to avoid double counting.

After adjusting for economies of scale, your productivity (weighted transaction volumes per FTE) was 7% below the weighted peer average.



1. The peer and all averages are weighted by workloads (i.e., weighted transactions per member) because differences in productivity matter more for peers with higher workloads when explaining cost differences.

Productivity by activity

Productivity by activity must be interpreted cautiously because annual fluctuations in activity volumes can cause large swings in productivity. Unusually high volumes in a given year will make you look more productive than normal. Unusually low volumes will make you look less productive.

Productivity by Front-Office Activity											
		Activity	y Volume pe	er FTE							
Front-Office Activities	Activity Volume Description	You	Peer Avg	All Avg							
1. Member Transactions											
a. Pension Payments	Annuitants	15,311	24,098	41,909							
b. Pension Inceptions	New Payee Inceptions	1,130	633	813							
c. Withdrawals and Transfers-out	Withdrawals and Transfers-out	652	1,349	1,668							
d. Purchases and Transfers-in	Purchases and Transfers-in	n/a	638	526							
e. Disability	Disability Applications	34	190	194							
2. Member Communication											
a. Call Center	Calls and Emails	9,862	12,351	10,443							
b. Mail Room, Imaging	Incoming Mail	9,727	17,465	25,313							
c. 1-on-1 Counseling	Members Counseled 1-on-1	561	1,668	1,607							
d. Presentations and Group Counseling	Member Presentations	78	145	121							
e. Written Pension Estimates	Written Estimates	n/a	2,935	9,779							
f. Mass Communication	Active Members and Annuitants	119,924	71,945	108,026							
3. Collections and Data Maintenance											
a. Data and Money from Employers	Active Members	8,150	15,012	33,172							
b. Service to Employers	Active Members	n/a	39,241	107,716							
c. Data Not from Employers	Actives, Inactives, Annuitants	48,389	115,127	464,919							
Weighted Transactions per Front Office FT	E	78,366	103,513	134,978							
adjusted for Economies of Scale ¹ , ²		78,366	84,644	89,086							

^{1.} Productivity is impacted by economies of scale. CEM research shows that, on average, smaller systems have lower productivity than larger systems. In section 3 Total Costs when we explain reasons for differences between your cost and the peer average, we quantify the impact of economies of scale separately from the impact of productivity. Thus we need to adjust the productivity of your peers for economies of scale to avoid double counting.

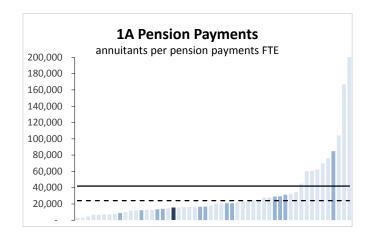
Differences in productivity are caused by differences in:

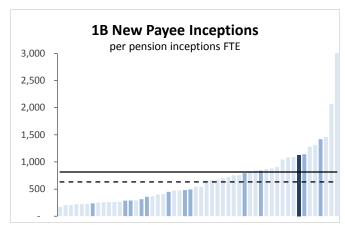
- Economies of scale (see previous page)
- Staff skills and staff productivity
- IT capability / online transactions
- Service levels, for example, shorter wait times may require more staff
- Complexity of plan rules
- Using more consultants and third parties to do part of the work
- Projects
- Organization design

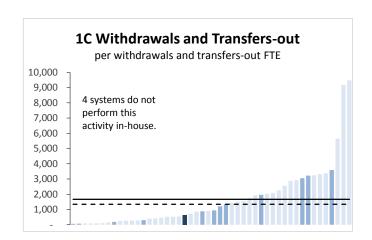
It is important to emphasize that total productivity is not a measure of staff productivity; staff productivity is however a component of total productivity.

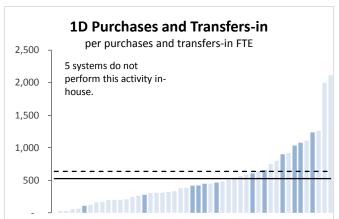
^{2.} The peer and all averages, for this value only, are weighted by workloads (i.e., weighted transactions per member) because differences in productivity matter more for peers with higher workloads when explaining cost differences.

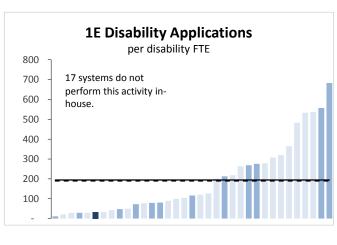
Productivity by activity - member transactions



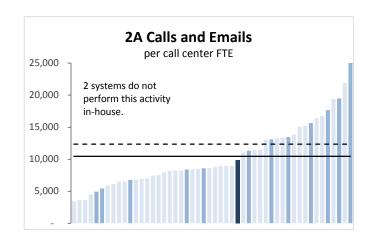


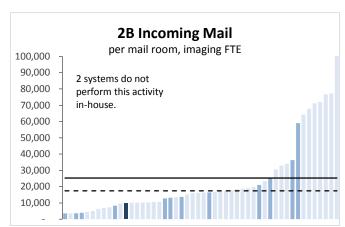


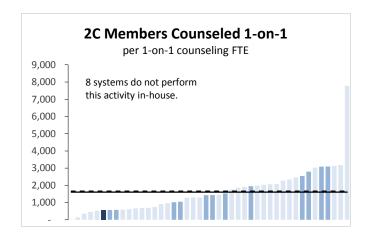


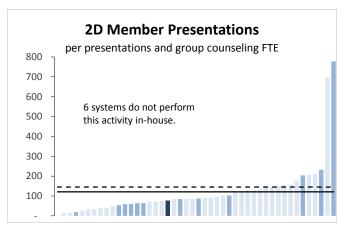


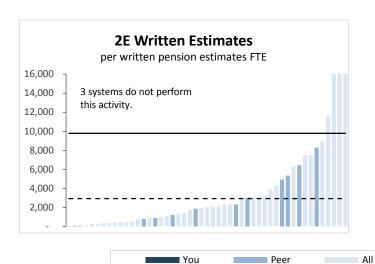
Productivity by activity - member communication

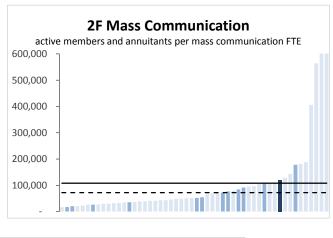








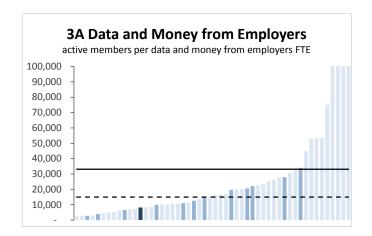


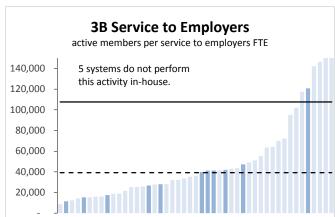


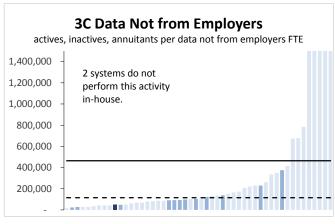
- All Avg

--- Peer Avg

Productivity by activity - collections and data maintenance









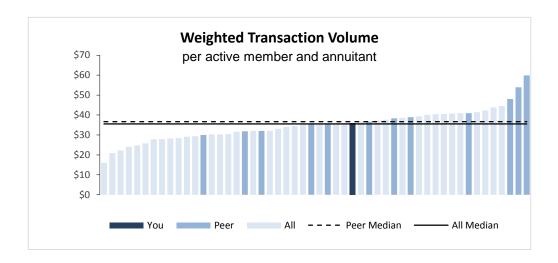
Transaction Volumes

This section contains:

- Comparisons of the most important pension administration transaction volumes for each front-office activity. Transactions are a major driver of costs. It is higher cost to have more transactions per member.
- Comparisons of total workloads your weighted transaction volumes per member. This shows whether your transaction volumes are more or less costly in aggregate.

Workload: Weighted transaction volume per member

Your weighted transaction volume was \$36.02 per active member and annuitant. This was below the peer median of \$36.66.



Your weighted transaction volume per member indicates whether you are doing more or less administration work per member in aggregate than your peers. This could be due to reasons that are beyond your control, or because you are voluntarily doing more work for your members. Differences in work reflect differences in:

- Activities that you administer. For example, some systems do not administer disability.
- Service levels
- Membership mix
- Member demographics

The calculation of your weighted transaction volume is shown on the following page.

Interpreting your weighted transaction volumes

Transaction volumes are an important driver of costs. As shown in 'section 3 - Total Cost', your below average weighted transaction volumes decreased your total cost by an estimated \$4.89 per member relative to the peer average.

Mindful that transaction volumes are a significant driver of cost, this is one area to focus attention on in terms of potentially saving money. You may look at where you process more work than your peers with a view to reducing that volume (provided you have control over the volume).

Calculation of your weighted transaction volume

Your weighted transaction volume equals the cost weighted average of the 14 'front-office' pension administration transaction volumes shown in the table below.

Calculation of Your Weighte	ed Transactions per	Member	
		Weight = All	
	Your	Median Cost per	Weighted
Transaction (or Cost Driver) by	Volume	Transaction	Volume
Front-Office Activity	(A)	(B)	(A x B)
<u>-</u>			
1. Member Transactions		4	
a. Pension Payments (Annuitants)	113,298	\$8.06	913,552
b. New Payee Inceptions	6,440	\$151.67	976,727
c. Withdrawals and Transfers-out	4,826	\$92.51	446,454
d. Purchases and Transfers-in	1,700	\$233.60	397,112
e. Disability Applications	704	\$1,196.80	842,547
2. Member Communication			
a. Calls and Emails	220,911	\$7.83	1,730,031
b. Incoming Mail	75,869	\$5.53	419,808
c. Members Counseled 1-on-1	8,355	\$58.58	489,443
d. Member Presentations	159	\$1,164.77	185,199
e. Written Estimates	4,768	\$35.46	169,043
f. Mass Communication	,	·	,
(Active Members and Annuitants)	251,840	\$3.58	900,952
3. Collections and Data Maintenance			
a. Data and Money from Employers			
(Active Members)	138,542	\$6.63	918,967
b. Service to Employers	===,= :=	,	- 12/23/
(Active Members)	138,542	\$2.67	369,872
c. Data Not from Employers	====	7	222,27
(Actives, Inactives, Annuitants)	387,110	\$0.80	311,165
Total			9,070,873
Total per active member and annuitant			\$36.02

Methodology notes

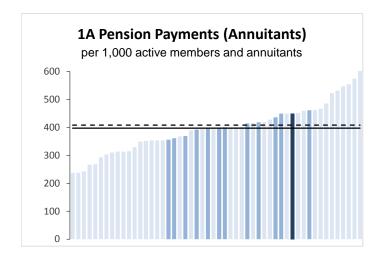
- Weights The weights used for all activities are the all median cost per transaction. This enables us to normalize for the substantial differences in time and effort expended on each type of task. For example, a 1-on-1 counseling session is more costly and time consuming than answering a telephone call. This difference is reflected in the weights where the cost per 1-on-1 counseling session of \$58.58 is approximately 7 times higher than the cost per call of \$7.83.
- Back-Office Activities (e.g., Governance and Financial Control, Major Projects and Support Services) The work of back-office activities is excluded from the weighted transaction volume score. This is because most work of backoffice activities cannot be analyzed in terms of transaction volumes. For example, it would be nearly impossible to consider the role of a CEO in terms of the number of transactions that he or she processes.
- Web Transaction volumes are weighted the same regardless of channel. Online transactions typically cost less, but if we applied a lower weight, then a system that has achieved a high level of online functionality would be unfairly penalized.
- Secondary versus primary cost drivers The activity volumes used to determine your weighted transaction volume score are the primary cost drivers for each activity. Secondary cost drivers are ignored in this section because they are usually relatively immaterial.
- Using members as a proxy For some activities, we have used members (or member subsets such as annuitants) as a proxy for the activity's transactions. For example, active members are used as a proxy for the transactions of the Collections and Data Maintenance activity. The implicit assumption is that data maintenance transactions, such as address changes, will occur at similar ratios of members for all systems.

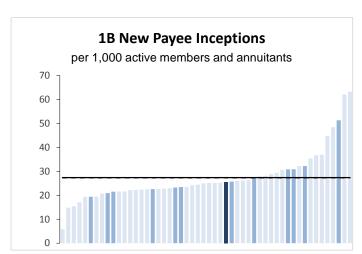
Comparison of transaction volumes by activity

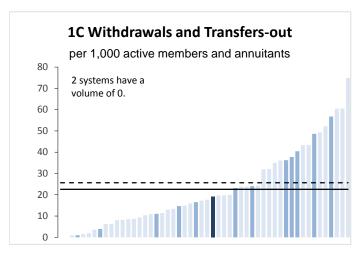
The table below shows whether you are doing more or fewer transactions per member than your peers by front-office activity. All volumes in the table are compared 'per 1,000 active members and annuitants' even if all member types do not always cause the volume. This is because active members and annuitants is the divisor when comparing total cost per member. Therefore, to know how volumes impact your relative total cost performance, they need to be compared on the same basis.

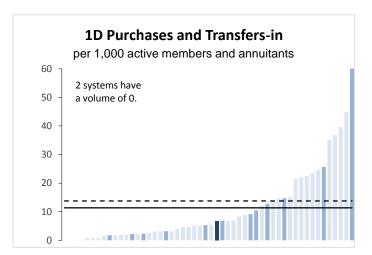
Comparisons of Transaction	Volumes by A	ctivity		
		<u>Volume</u>	per 1,000	<u>Active</u>
		<u>Membe</u>	rs and Ann	<u>uitants</u>
	Your			
Transaction (or Cost Driver) by Front-Office Activity	Volume	You	Peer Avg	All Avg
1. Member Transactions				
a. Pension Payments (Annuitants)	113,298	450	408	398
b. New Payee Inceptions	6,440	26	27	27
c. Withdrawals and Transfers-out	4,826	19	26	23
d. Purchases and Transfers-in	1,700	7	14	11
e. Disability Applications	704	3	2	2
2. Member Communication				
a. Calls and Emails	220,911	877	727	597
b. Incoming Mail	75,869	301	495	419
c. Members Counseled 1-on-1	8,355	33	44	26
d. Member Presentations	159	1	1	1
e. Written Estimates	4,768	19	39	34
f. Mass Communication				
(Active Members and Annuitants)	251,840	1,000	1,000	1,000
3. Collections and Data Maintenance				
a. Data and Money from Employers				
(Active Members)	138,542	550	592	602
b. Service to Employers				
(Active Members)	138,542	550	592	602
c. Data Not from Employers				
(Actives, Inactives, Annuitants)	387,110	1,537	1,345	1,361
Control Total		dac a46	d20.046	624.242
Cost Weighted Total		\$36,018	\$39,819	\$34,949

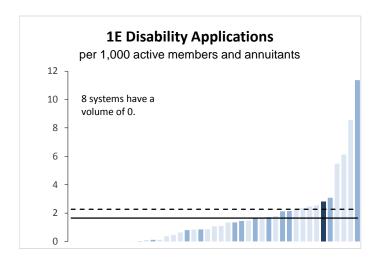
Member transactions per 1,000 members: Graphical comparisons





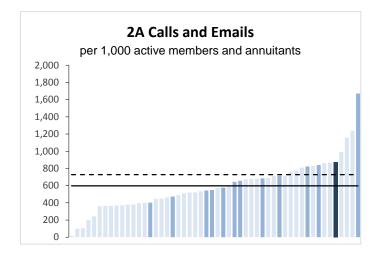


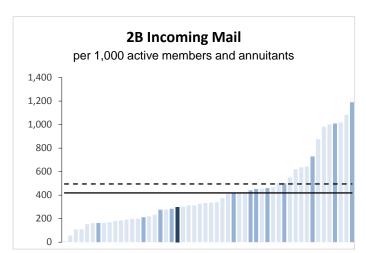


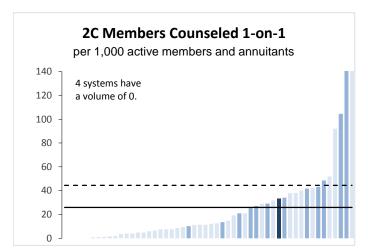


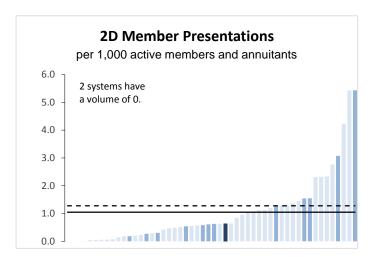


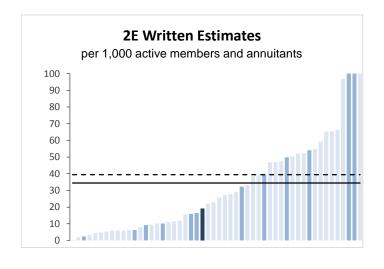
Communications transactions per 1,000 members: Graphical comparisons





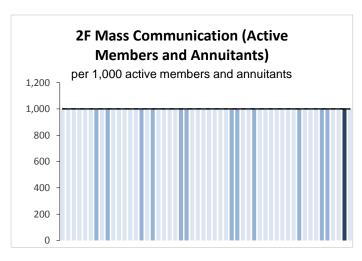






■ You

Peer

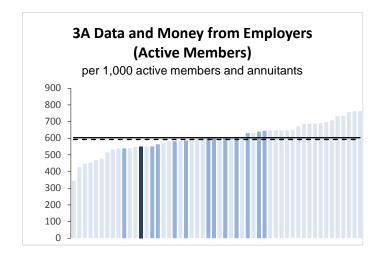


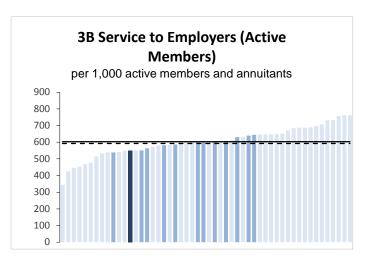
All Avg

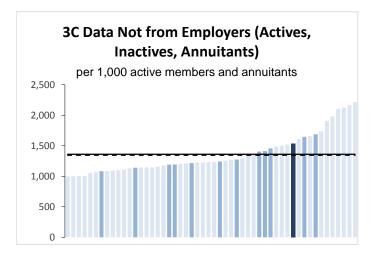
Αll

--- Peer Avg

Collections and data transactions per 1,000 members: Graphical comparisons









Online transactions

Online Tool	Ş	% offering	tool	1,000 a	If offered: Volume per 1,000 active members annuitants Peer Al				
	You	Peer	All	You	Median	Median			
Benefit calculators									
In non-secure area	Yes	46% Yes	46% Yes	n/a	288	264			
In secure area not linked to member data	No	23% Yes	12% Yes	n/a	135	71			
In secure area linked to member's salary and service data	Yes	85% Yes	87% Yes	62	284	322			
Service credit purchase calculator	Yes	62% Yes	71% Yes	29	58	34			
Register for counseling sessions	No	38% Yes	32% Yes	n/a	6	3			
Real-time access to available dates and times	n/a	100% Yes	80% Yes						
Register for counseling presentations	Yes	69% Yes	55% Yes	n/a	16	15			
Live chat	No	0% Yes	6% Yes	n/a	n/a	6			
Change address	Yes	100% Yes	82% Yes	18	16	21			
Change beneficiary	No	31% Yes	44% Yes	n/a	53	33			
Change email address	Yes	92% Yes	82% Yes	17	55	22			
Reset password	Yes	85% Yes	78% Yes	250	130	77			
Tools for annuitants									
Change banking information for direct deposit	Yes	54% Yes	45% Yes	5	5	4			
Change tax withholding amount	Yes	77% Yes	57% Yes	4	7	6			
Download or print duplicate tax receipts	Yes	85% Yes	69% Yes	Unknown	31	29			
View annuity payment details	Yes	100% Yes	75% Yes	Unknown	94	89			
Submit a retirement application	No	26% Yes	22% Yes	n/a	15	13			
View status of online retirement application	n/a	50% Yes	38% Yes	n/a	157	59			
Apply for a refund or a transfer-out	n/a	25% Yes	29% Yes	n/a	18	6			
Digital file of recent correspondence and member documents	No	31% Yes	35% Yes	n/a	145	161			
Download member statement	Yes	85% Yes	86% Yes	40	146	109			
Upload documents	No	15% Yes	20% Yes	n/a	2	2			
View pensionable earnings and/or service without downloading	Yes	92% Yes	86% Yes	1,183	572	330			
If yes:									
Are both salary and service data available?	Yes	100% Yes	98% Yes						
Is online data up-to-date to the most recent pay period?	No	58% Yes	73% Yes						
Is a complete annual history from the beginning of									
employment provided?	No	58% Yes	59% Yes						
If you administer a core DC or hybrid DB/ DC plan:									
Switch between investment options	n/a	50% Yes	77% Yes	n/a	6	8			
Change deferral percentage selections for regular	,								
contributions	n/a	25% Yes	31% Yes	n/a	2	6			
Initiate withdrawals	n/a		36% Yes	n/a	279	47			
View current valuation of their account	No		71% Yes		366	366			

Offering online transactions as an option is higher service. Online transactions can also reduce costs provided sufficient volumes are achieved.

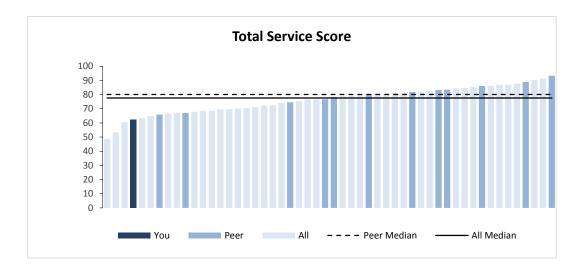
Service Levels

This section:

- Analyzes your current service levels relative to your peers, and other retirement systems in the U.S., Canada, Denmark, Sweden and the Netherlands to identify what you do and how it compares to others.
- Identifies areas where you may be able to improve or reduce your service levels.
- Provides details of the methodology and criteria we used to evaluate your service levels.

Total Service Score

Your total service score was 62 out of 100. This was below the peer median of 80.



Your total service score is the weighted average of your service scores for the activities shown on the next page.

Interpreting your service score

A higher service score is not necessarily better. This is because:

- High service may not always be cost effective or optimal. For example, it is clearly higher service for your members to have a contact center open 24 hours a day but few systems would be able to justify the cost.
- Our 'weights' are an approximation of the importance of an individual service element. The weights will not always reflect the relative importance that you or your members attach to an individual service element.

The service measures are most useful for identifying what you are doing differently than your peers. Understanding these differences can give you ideas on how you may want to improve or reduce the service you provide to your members.

Service scores by activity

Your total service score is the weighted average of your service scores for each of the activities shown in the table below. The rationale for the weighting scheme is discussed on the following page.

Service Scores by Activity													
			You ^{2, 3} Peer 2015					All 2	015				
Activity	Weight 1	2015	2014 2	013 20	012	Avg	Max	Med	Min	Avg	Max	Med	Min
1. Member Transactions													
a. Pension Payments	19.7%	100				100	100	100	100	99	100	100	81
b. Pension Inceptions	7.4%	71				79	98	85	10	83	100	88	10
c. Withdrawals and Transfers-out	1.3%	55				64	100	77	0	71	100	81	0
d. Purchases and Transfers-in	3.1%	0				72	100	89	0	72	100	82	0
e. Disability	3.8%	69				84	100	90	64	81	100	87	10
2. Member Communication													
a. Call Center	21.2%	31				68	96	70	31	66	96	68	31
c. 1-on-1 Counseling	7.4%	65				81	99	84	46	71	99	76	0
d. Member Presentations	6.5%	83				82	96	85	52	76	100	86	0
e. Written Pension Estimates	4.7%	48				81	100	91	45	79	100	80	44
f. Mass Communication													
• Website ²	11.3%	74				71	89	73	43	68	92	72	21
 News and targeted communication 	2.8%	55				73	95	70	46	72	100	76	15
Member statements	4.7%	78				83	96	86	63	78	100	80	15
3. Quality Indicators													
Satisfaction Surveying	5.0%	17				47	90	37	17	40	99	36	0
Disaster Recovery	1.0%	48				87	100	88	48	88	100	90	48
Total service score	100%	62				79	93	80	62	76	93	78	49

^{1.} The rationale for the weighting scheme is shown on the next page. Other systems may have slightly different activity weights than you. Their weights reflect the member transactions that they administer. For example, you administer disability whereas some of your peers do not. Therefore, the average total service score will not match the activity weight multiplied by the average activity service score.

^{2.} Website capabilities are also incorporated in the service scores for other activities. Those activities and the contribution of the website-related part of the score are: 1a Pension Payments, 1.0%, 2c 1-on-1 Counseling, 1.3%, 2d Member Presentations, 2.4% and 2e Written Pension Estimates, 2.1%, for a total of 6.8%

^{3.} Historic scores have been restated to reflect changes in methodology.

Rationale for the weighting scheme

CEM considered the following 7 criteria to determine the weights used to calculate your total service score:

1. Feedback from Participants

The weights reflect feedback from participants solicited at on-site meetings, symposiums and peer conferences.

2. Relative Cost of Each Activity

As shown in section 3, the average participant spends 4.6% of its annual budget on member calls versus 1.5% for 1-on-1 counseling. Thus, based solely on relative cost, member calls are 3.1 times more important than 1-on-1 counseling.

3. **Relative Volume of Each Activity** (i.e., how many times does the service 'touch' a member?)
The average system does 27 pension inceptions and receives 597 member calls for every 1,000 active members and annuitants. Thus, based solely on relative volume, calls are 21.8 times more important than pension inceptions.

4. Expectations Based on External Experience

Members have external comparisons for receiving payments, telephone calls, and annual statements (for example, they can compare some of your services with the services provided by their bank). However, it is unlikely that they can compare a pension inception. It is important to recognize that members can compare some processes externally.

5. Personalized Human Contact

Research shows that human contact provides the greatest opportunity for generating customer satisfaction. Thus, based solely on personalized human contact, counseling and calls are more important than 'no contact' activities such as the website or paying pensions.

6. About Members' Money

Nothing gets a member's attention faster than their own money. Based on this criterion, things like benefit calculators linked to member data, benefit statements and paying pensions are much more important than newsletters or brochures.

7. Mission Critical

Paying pensions is mission critical. Producing newsletters is not.

Service Trends

	Service Score Trends by Activity														
		Y	ou			4	-Year¹	Peer A	verag	9		4-Year¹	All Av	erage	
Activity	2012	2013	2014	2015	% ²	2012	2013	2014	2015	% ²	2012	2013	2014	2015	% ²
1. Member Transactions															
a. Pension Payments				100	n/a	100	100	100	100	0.0%	99	99	99	99	0.0%
b. Pension Inceptions				71	n/a	74	74	77	78	1.8%	79	79	80	82	1.3%
c. Withdrawals and Transfers-out				55	n/a	65	65	66	63	-1.0%	59	61	68	71	6.4%
d. Purchases and Transfers-in				0	n/a	60	70	70	75	7.7%	64	67	71	73	4.5%
e. Disability				69	n/a	85	86	87	87	0.8%	81	83	84	84	1.2%
2. Member Communication															
a. Call Center				31	n/a	68	66	70	72	1.9%	66	65	65	68	1.0%
c. 1-on-1 Counseling				65	n/a	83	83	83	83	0.0%	74	75	75	75	0.4%
d. Member Presentations				83	n/a	85	81	83	84	-0.4%	81	79	80	80	-0.4%
e. Written Pension Estimates				48	n/a	78	81	80	81	1.3%	77	78	77	79	0.9%
f. Mass Communication					,										
Website				74	n/a	73	73	74	74	0.5%	67	68	68	69	1.0%
 News and targeted communication 				55	n/a	73	73	73	77	1.8%	72	73	73	74	0.9%
Member statements				78	n/a	80	82	83	83	1.2%	76	77	76	77	0.4%
3. Quality Indicators															
Satisfaction Surveying				17	n/a	51	53	55	53	1.3%	39	41	42	44	4.1%
Disaster Recovery				48	n/a	89	89	88	91	0.7%	88	89	89	91	1.1%
Disaster necovery				40	11/ d	03	03	00	91	0.7%	00	03	03	31	1.170
Total Service Score				62	n/a	78	78	80	81	1.3%	76	76	76	77	0.4%

^{1.} Trend analysis is based on systems that have participated for 4-consecutive years (10 peers and 41 World systems). This ensures that trends are not caused by changes in the composition of the participants.

Historic scores have been restated to reflect changes in methodology. If any service question was not asked in a prior year, we used your response from the year when the question was first asked as a default.

^{2. %} is the compound annual growth rate from 2012 to 2015.

Where can you potentially improve your score?

Potential Improvement in Tot	al Service	Score by Activ	ritv
1 otential improvement in rot	ai Sci Vice	Score by Activ	Potential
			improvement in
			your total service
			score if you
		Your	scored 100 for
Activity	Weight	Service Score	the activity ¹
1. Member Transactions			
a. Pension Payments	19.7%	100.0	0.0 points
b. Pension Inceptions	7.4%	71.2	2.1 points
c. Withdrawals and Transfers-out	1.3%	55.0	0.6 points
d. Purchases and Transfers-in	3.1%	0.0	3.1 points
e. Disability	3.8%	68.5	1.2 points
2. Member Communication			
a. Call Center	21.2%	30.7	14.7 points
c. 1-on-1 Counseling	7.4%	65.2	2.6 points
d. Member Presentations	6.5%	82.8	1.1 points
e. Written Pension Estimates	4.7%	47.8	2.5 points
f. Mass Communication	,		
Website	11.3%	74.0	2.9 points
News and targeted communication	2.8%	55.0	1.3 points
Member statements	4.7%	78.0	1.0 point
3. Quality Indicators			
Satisfaction Surveying	5.0%	16.9	4.2 points
Disaster Recovery	1.0%	48.0	0.5 points
,			
Total	100%	62.2	37.8 points

^{1.} Each listed potential improvement to total service score equals 100 minus your 2015 score multiplied by the weight used to determine the total service score.

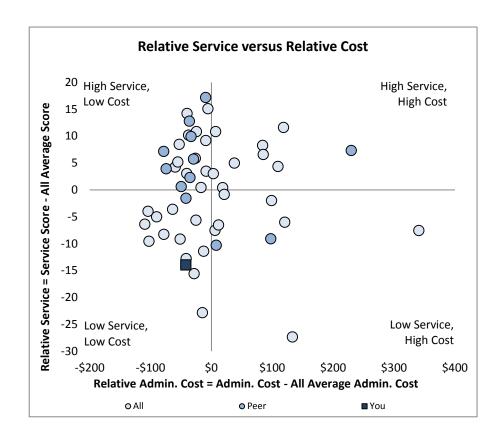
Biggest potential improvements to your total service score

CEM is not recommending these changes. Higher service is not necessarily optimal or cost effective. We include this summary analysis because many participants want to know what they would have to do to achieve a higher score. For a complete list of all improvements required to achieve a perfect service score, please refer to the last pages of this section.

The table below lists five key areas where the biggest potential improvements to your total service score can be made.

Biggest potential improvements to your total service score		
		Potential
Rank	Factor	Improvement
#1	On average, members calling your call center reach a knowledgeable person in 379 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 20 seconds or less.	+ 3.82
# 2	On average, you provide a service credit purchase in 180 days. To achieve a perfect service score, you must be able to provide a service credit purchase estimate in 1 day or less.	+ 3.10
#3	17.0% of your incoming calls resulted in undesired outcomes. To achieve a perfect service score, members must experience no undesired call outcomes.	+ 2.88
# 4	You have 3 menu layers. To achieve a perfect service score you must have one or fewer menu layers.	+ 1.70
# 5	You provide estimates on average in 180 days. To achieve a perfect service score, the weighted averge time required to provide written and online estimates must be same day or less.	+ 1.48

Relationship between service and pension administration cost

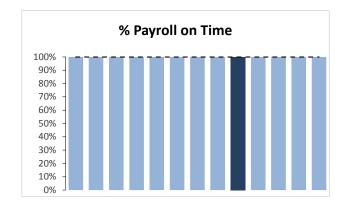


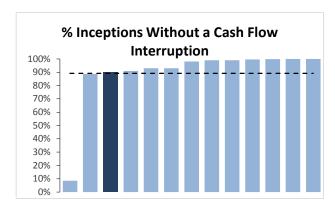
Service scores are not good predictors of costs because:

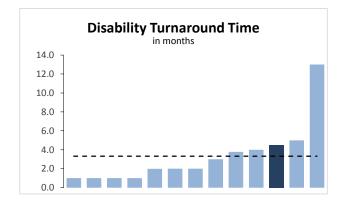
- Costs are driven much more by the volume of service transactions (e.g., the number of calls, 1-on-1 sessions, presentations, etc.) than they are by their timeliness, availability, or quality.
- Service is partly a function of historic investment in information technology. These historic costs are not always reflected in current administration costs.

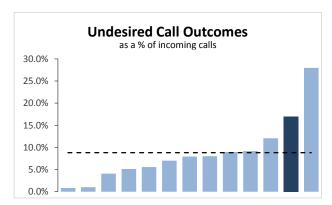
Graphical comparison of key measures

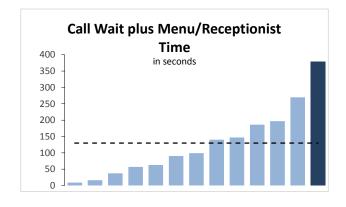
This page shows key service metrics that are especially important from a member's perspective.

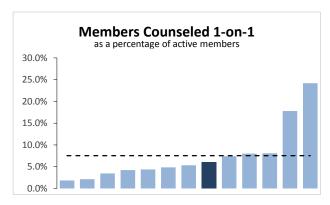




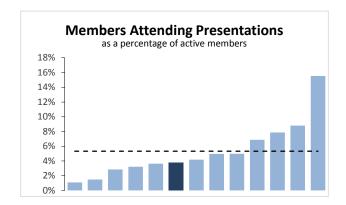


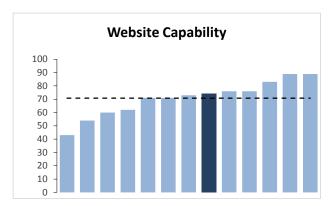


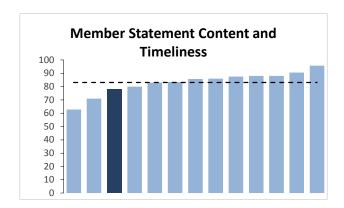


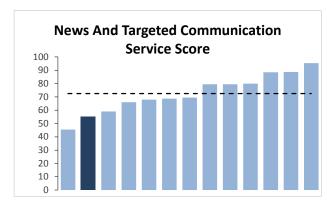


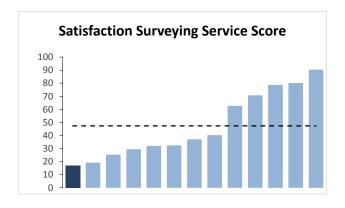
Graphical comparison of key measures



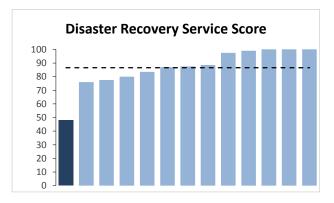








■ You

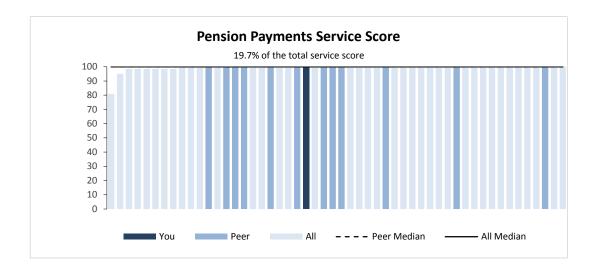


- - - Peer Avg

Peer

1A Pension Payments

Your service score for paying pensions was 100 out of 100. This was equal to the peer median.

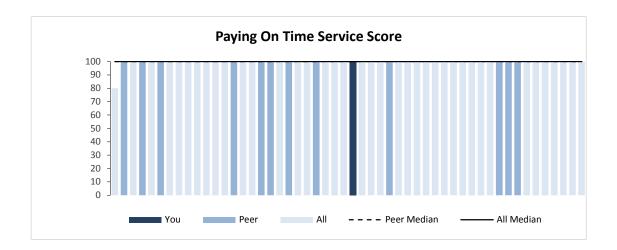


Your service score for 1a pension payments is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Pension Payments Service Score Components				
		Your		
	Weight	Score		
a. Paying on time	95%	100.0		
b. Payment advices	5%	100.0		
Weighted Total	100%	100.0		

a. Paying on time

Your service score for paying on time was 100 out of 100. This was equal to the peer median.



1. Scoring	method	Your	Your
		Data	Score
+ 100	if none of your pension payrolls were late vis-à-vis your normal payment cycle, otherwise 100 - (10 X number of late payrolls X average days late)	n/a	100
	Total score		100

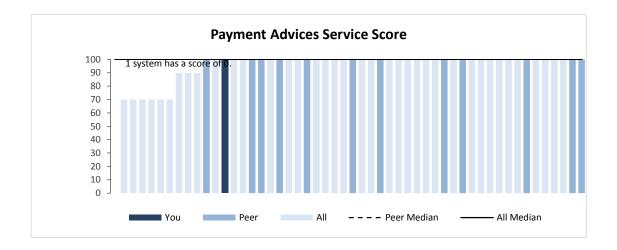
2. Rationale for the scoring method

Paying pensions on time is a critical component for all retirement systems. A perfect score requires that all regular payments are paid on time to the correct annuitants.

3. Survey questions used						
		You	Peer Avg			
Q11	Were any of your pension payrolls late vis-à-vis your normal payment cycle? [For example, a payroll might be late because of IT system problems, etc.] a) How many payrolls were late? b) On average, how many days late were they?	No n/a n/a	0% Yes n/a n/a			

b. Payment advices

Your service score for payment advices was 100 out of 100. This was equal to the peer median.



1. Scoring	method	Your	Your
		Data	Score
+ 100	if payment advices can be viewed online	Yes	100.0
Or if you s	end payment advices by paper:		
+ 80	if you send payment advices detailing the gross payment and deductions with every payment, 70 if every time amount changes, 50 if payment advices are sent quarterly, otherwise 0	Every Time Amount Changes	n/a
+ 20	if you can comply with a request not to send a payment advice	No	n/a
	Total score		100.0

2. Rationale for the scoring method

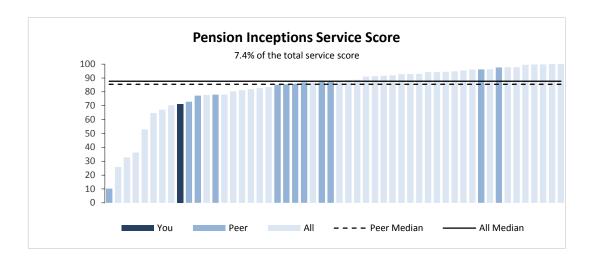
Paperless is most cost-effective. Therefore, systems that provide payment advices online get full points. Alternatively, systems that still send paper and can comply with a members request not to send payment advices, also receive the highest score.

b. Payment advices

3. Surve	y questions used		
		You	Peer Avg
Q13	Do you send out payment advices (i.e., gross/ net specifications) in paper format to members receiving EFT payments? a) How frequently do you send payment advices with your EFT payments detailing the gross payment and deductions? b) Can you comply with a member's request not to send them payment advices?	Yes Every Time Amount Changes No	92% Yes 6 times 17% Yes
Q81	Indicate whether the following capabilities are available on your website and provide volumes: o) View pension payment details? [i.e., gross amounts, deductions]	Yes	100% Yes

1B Pension Inceptions

Your service score for pension inceptions was 71 out of 100. This was below the peer median of 85.

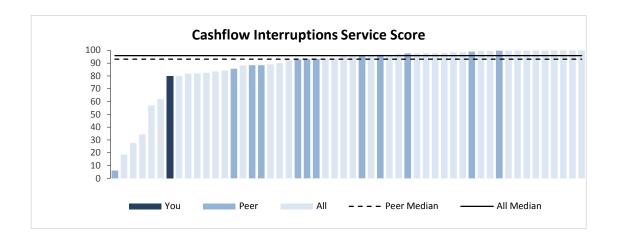


Your service score for 1b pension inceptions is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Pension Inceptions Service Score Components				
	Your			
	Weight	Score		
a. Cashflow interruptions	78%	80.0		
b. Survivor pensions	11%	0.0		
c. Red tape	11%	80.0		
Weighted Total	100%	71.2		

a. Cashflow interruptions

Your service score for cashflow interruptions was 80 out of 100. This was below the peer median of 93.



1. Scoring	method	Your	Your
		Data	Score
+ 100	if 100% of your service pensions were incepted without a cashflow interruption greater than 1 month, otherwise 100 X percent of inceptions that occur within 1		
	month of final paycheck	90.0%	90.0
	If a service retirement is based on estimates, less:	Yes	
- 10	10 X percent of service retirements based on estimates X average number of months	20.0%	
	to finalize / 3	15.0	
	[Subject to a maximum deduction of 10 and a minimum score of 0]		-10.0
	Total score		80.0

2. Rationale for the scoring method

Retiring members should not experience a cash flow interruption between their final pay check and their first pension check. A cash flow interruption could cause financial hardship.

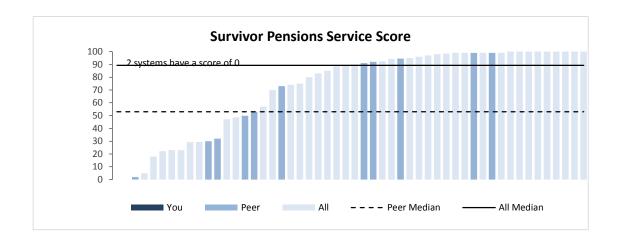
When pension payments are based on estimates, the sooner the amount is finalized, the better because estimates can cause financial uncertainty.

a. Cashflow interruptions

3. Surve	y questions used		
		You	Peer Avg
Q17	What percentage of annuity inceptions for: a) Retiring active members are paid without an interruption of cash flow greater than 1 month between the final pay check and the first pension check?	90.0%	89.2%
Q18	Will you initiate a service retirement pension based on existing data or estimates, recognizing that you will have to finalize the payments later after you get final data?	Yes	77% Yes
	a) If yes, what proportion of your service retirement inceptions to retiring active members was based on existing data or estimates?b) On average, how long did it take to finalize service retirement inceptions based on	20.0%	57.3%
	estimates? (in months)	15.0	5.3 months

b. Survivor pensions

Your service score for survivor pensions was 0 out of 100. This was below the peer median of 53.



1. Scoring	method	Your	Your
		Data	Score
+ 100	if all of your survivor pensions were incepted without a cashflow interruption greater than 1 month, otherwise:		
	100 x percent of pensions paid without interruption to survivors	0.0%*	0.0
	Total score		0.0

2. Rationale for the scoring method

An interruption in a pension benefit at the death of the primary annuitant creates potential hardship for the survivor at a difficult time. A perfect score requires that all survivor pensions are paid without interruption.

3. Surve	y questions used		
		You	Peer Avg
Q17	What percentage of annuity inceptions for: b) Survivors are paid without an interruption of cash flow between the pensioner's final pension check and the survivor's first pension check?	0.0%*	55.0%

c. Red tape

1. Scoring	method	Your	Your
		Data	Score
+ 80	if you do not require notarization of retirement applications, or + 40 if you require notarization of some retirement applications	not required	80.0
+ 20	if you do not require birth/marriage certificates before incepting a pension	required	0.0
	Total score		80.0

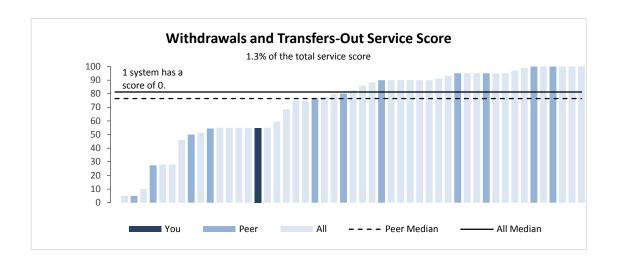
2. Rationale for the scoring method

Extra red tape creates work for members and may not provide additional protection for the system. For example, notarizations can be fraudulent. Many systems have decided that the potential risk reduction does not justify the inconvenience caused to members.

3. Survey questions used					
		You	Peer Avg		
Q19	Do you require birth certificates and/or marriage certificates before incepting a				
	pension?	Yes	69% Yes		
Q20	Do you require notarization of normal or early retirement applications?	No	38% Yes		

1C Withdrawals and Transfers-out

Your service score for refunds, transfers-out and withdrawals was 55 out of 100. This was below the peer median of 77.



Scoring method		Your	Your
		Data	Score
	Withdrawal timeliness		
+ 45	If withdrawals are completed on the day the mandatory wait period ends,		
	otherwise, otherwise 45 - 4.5 X number of days over the mandatory wait period		
	[Subject to a minimum score of 0]	55	0.0
		days	
	Transfers-out timeliness		
+ 45	if transfers-out are completed in 30 days or less, otherwise 45 - 0.9 for each day		
	over 30 days [Subject to a minimum score of 0]	20	45.0
	over 30 days [Subject to a minimum score or o]	days	13.0
	No rod tano	,.	
4.0	No red tape		
+ 10	if you do not require notarization for refund or transfer-out applications, 5 if some	not	
	applications require notarization, 0 if notarization is required	required	10.0
	Total score		55.0

2. Rationale for the scoring method

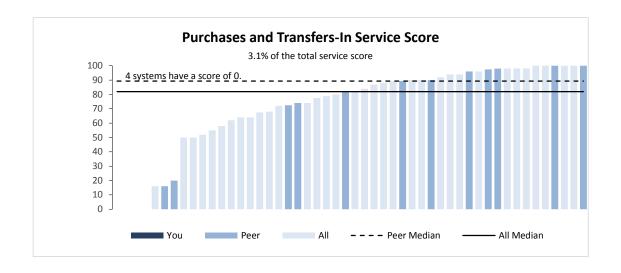
Speed from request to completion is what matters to members, regardless of whether the delays are caused by internal or external parties.

1C Withdrawals and Transfers-out

3. Surve	y questions used		
		You	Peer Avg
Q22	How long does it take on average for you to issue a refund check, including any required wait period, beginning from the time of the initial request by the member		1
	(in days)? a) Are you legislated to have a wait period before you can effect a refund?	55 Yes	54 days 69% Yes
	b) How long is the wait period? (in days)	45	60 days
	c) Can the wait period be waived?	No	33% Yes
Q23	How long does it take on average for you to complete an individual transfer-out to an external system, including delays caused by external parties, beginning from the		
	time of initial request by the member (in business days)?	20	44 days
Q24	Do you require notarization of refund or transfer-out applications?	No	24% Yes

1D Purchases and Transfers-in

Your service score for purchases and transfers-in was 0 out of 100. This was below the peer median of 89.



1. Scoring	method	Your	Your
		Data	Score
+ 100	Service credit purchase estimates if you can provide a service credit purchase estimate in 1 day or less, otherwise 100 - 2.5 per day over 1 day	180 days	0.0
n/a	<u>Transfers-in</u> You do not do transfers-in, so excluded from the calculation of your score		
	Total score		0.0

2. Rationale for the scoring method

From a member perspective, faster is higher service.

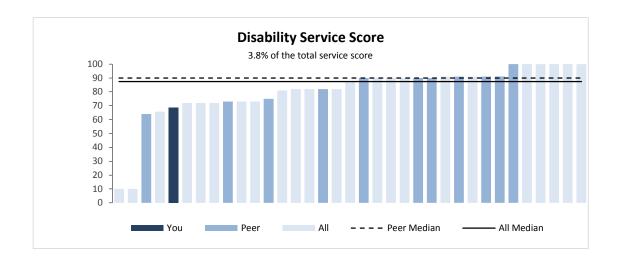
The score for transfers-in is mostly based on your own timeliness. A small part of the score is based on the total time it takes to complete transfers-in (i.e., including delays caused by third parties). Speed from request to completion is what matters to members, regardless of whether the delays are caused by internal or external parties.

1D Purchases and Transfers-in

3. Survey questions used				
		You	Peer Avg	
Q27	On average, how many business days does it take from the date of first request to provide a written service credit purchase cost?	180	32 days	
Q28	How long does it take on average for you to do individual transfers-in? [Months from request to completion including delays caused by external parties]	n/a	2 months	

1E Disability

Your service score for disability was 69 out of 100. This was below the peer median of 90.



1. Scoring	method	Your	Your
		Data	Score
+ 90	if you return a decision on a disability application in 1 month or less, otherwise 90 - for each month over 1 month [Subject to a minimum score of 0]	9 4.5 months	59
+ 10	if you do not require notarization of disability applications, 5 if some applications require notarization, 0 if notarization is required	not required	10
	Total score		69

2. Rationale for the scoring method

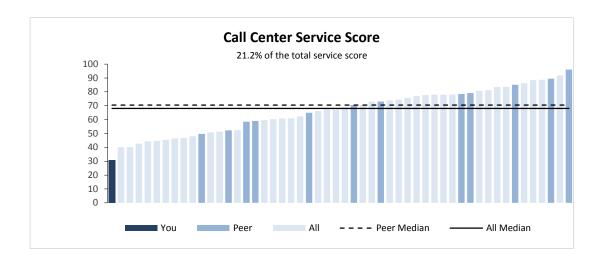
Taking more than 1 month to return a decision in a disability application can cause financial insecurity for members. Faster turnaround times are higher service from the member's perspective.

Requiring notarization causes delays and inconvenience from the member's perspective.

3. Survey questions used					
		You	Peer Avg		
Q32	How many months, on average, does it take to return a decision on a disability application from: a) date of initial request from a member?	4.5	3 months		
Q34	Do you require notarization of disability applications?	No	23% Yes		

2A Call Center

Your call center service score was 31 out of 100. This was below the peer median of 70.

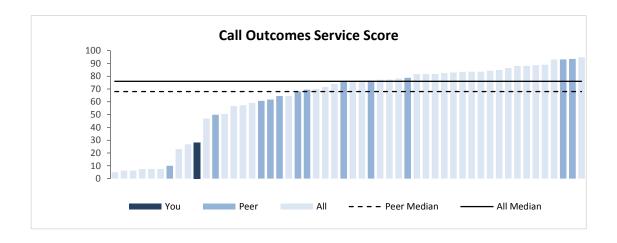


Your service score for 2a call center is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Call Center Service Sc	ore Components	
		Your
	Weight	Score
a. Call outcomes	20%	28.3
b. Call wait time	20%	6.0
c. Menu layers	10%	20.0
d. CRM and other capability	35%	45.0
e. Call quality	15%	40.8
Weighted Total	100%	30.7

a. Call outcomes

Your service score for call outcomes was 28 out of 100. This was below the peer median of 68.



1. Scoring	method	Your	Your
		Data	Score
+ 90	if members experience no undesired call outcomes - % of calls resulting in other undesired outcomes X 400 [Subject to a minimum score of 0]	17.0%	90.0 -68.0 22.0
+ 10	if your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each hour less than 50 hours per week [Subject to a minimum score of 0]	42.5	6.3
	Total score		28.3

2. Rationale for the scoring method

A perfect score requires that all calls either get through to a knowledgeable person or are satisfied by self-serve options.

Shorter business hours are treated as an undesired outcome because after-hour callers do not reach a knowledgeable person.

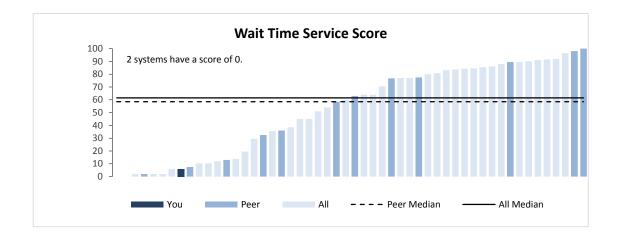
a. Call outcomes

3. Surve	ey questions used	You	Peer Avg
	Desired call outcomes		
Q35	a) Incoming calls that reach and are responded to by a knowledgeable service		
Q33	representative (i.e., exclude messages, etc.)?	198,089	
	c) Incoming calls satisfied by self-serve options, if any?	<u>n/a</u>	
	Total desired call outcomes (A)	198,089	
	<u>Undesired call outcomes during business hours</u>		
Q36	a) # Busy signal, never enters the system?	2,384*	
	b) # Caller gets pre-recorded 'call another time' message during business hours?	2,384*	
	c) # Voice mail takes a message during business hours?	n/a	
	d) # Abandoned calls (i.e., caller hangs-up while in a menu)?	9,950*	
	e) # Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	25,358	
	f) # System hangs up on caller (or sends the caller back to the main menu) after		
	he/she has waited in the queue longer than a pre-set time or if the queue becomes		
	full?	n/a	
	g) # System sends the caller back to the main menu after he/she has waited in the		
	queue longer than a pre-set time or if the queue becomes full?	n/a	
	h) # Busy signal after navigating an automated attendant menu, or after being		
	transferred by a receptionist?	n/a	
	i) # Call rings unanswered during business hours?	193	
	# Receptionists takes a message	n/a	
Q41	If you have a callback feature, # of callback requests that were not completed	229	
	Total undesired call outcomes during business hours (B)	40,497	
	Undesired outcomes as a percentage of total incoming calls (B / C)	17.0%	8.8%
	Total incoming calls (C = A + B)	238,358	
	<u>Undesired outcomes after business hours</u>		
Q51	How many hours per week is your 'call center' operational?	42.5h	45.2h

^{*} Your response was 'unknown'. A default was applied. See 'Appendix E' for details.

b. Call wait time

Your service score for call wait time was 6 out of 100. This was below the peer median of 59.



1. Scoring	. Scoring method		Your
		Data	Score
	<u>Calls</u>		
+ 90	if members reach a knowledgeable person in 20 seconds or less, otherwise		
	100 - 0.5 per second to reach a knowledgeable person		
	[Subject to a minimum score of 0]	379	0.0
	(seconds	
+ 2	if member is notified of expected wait time, or their place in the queue, when the		
	·	Yes	2.0
	expected wait exceeds a certain threshold	163	2.0
	Emails		
+ 8	if wait time is 0.5 days or less, otherwise 8 - 4 for each day over 0.5 days		
	[Subject to a minimum score of 0]	1.5	4.0
		days	
	Total score		6.0

2. Rationale for the scoring method

A perfect score requires callers to reach a knowledgeable person with minimal wait time, to be notified of their expected wait time, and a turnaround for emails of half a day or faster.

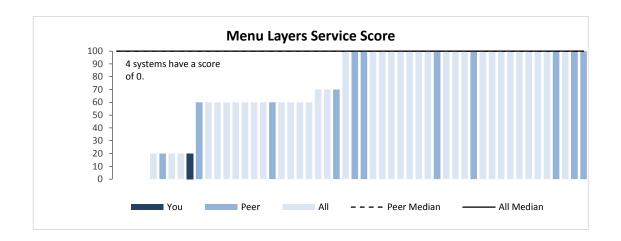
b. Call wait time

3. Surve	y questions used	You	Peer Avg
	Average total time in seconds for a caller to reach a knowledgeable person.		
	This is the sum of the time to:	379	130
	(1) Navigate menus		
Q37	If you have a menu:	Yes	85% Yes
	b) What is the average time in seconds that it would take a caller to negotiate		
	the menu and listen to menu options before the caller is forwarded to a live		
	person (or queue for a live person)? (A)	118	52
	c1) If yes, what percentage of calls is the menu system by-passed? (B)	<u>n/a</u>	<u>n/a</u>
	Adjusted time to navigate the menu = (A) X [1 - (B)]	118	52
	(2) Navigate receptionists		
Q38	If a receptionist usually responds first to member calls:	No	8% Yes
	Do you have a queue for the receptionist(s)?	n/a	100% Yes
	a1) If yes, what is the average wait time in seconds in the queue for the		
	receptionist(s)? (A)	n/a	6
	If no, average time to get through to the receptionist (i.e., time on hold etc.) is		
	assumed to be 10 seconds	n/a	10
	b) Average time in seconds for a caller to explain his needs to a receptionist		
	(assumed to be 25 seconds). (B)	n/a	25
	b1) Satisfied by the receptionist without forwarding? (C)	n/a	<u>2%</u>
	Adjusted time to navigate receptionists = (A) + (B) X [1 - (C)]	n/a	31
	(3) Wait in queue		
Q39	If you have a queue for a pool of knowledgeable staff:	Yes	100% Yes
QSS	a) Average wait time in seconds in queue for a service representative?	261	84
	b) % of calls forwarded by a receptionist, if applicable, to the queue.	n/a	<u>95%</u>
	Adjusted wait in the queue = (A) X (B), if applicable	261	84
	Adjusted Walt III the queue - (A) X (b), ii applicable	201	01
Q40	Does your system notify the caller of the expected wait time, or their place in the		
	queue, for reaching a knowledgeable service representative if the expected wait		
	exceeds a certain threshold?	Yes	38% Yes
Q52	Can members communicate questions using email?	Yes	92% Yes
	a) What is the average time (in business days) to respond to an email query? Do		
	not include auto-responses or confirmation of email receipt.	1.5	0.9 days

The sum of the peer average time to navigate menus, receptionists and wait in queue will add to more than the whole because non-applicable responses are not included in the averages.

c. Menu layers

Your service score for menu layers was 20 out of 100. This was below the peer median of 100.



1. Scoring	method	Your	Your
		Data	Score
+ 100	if one or fewer menu layers, 60 if 2 menu layers, 20 if 3 menu layers, 0 if 4 or more menu layers	3	20.0
- 30	if a receptionist is the first point of contact.	No	0.0
	Total score		20.0

c. Menu layers

2. Rationale for the scoring method

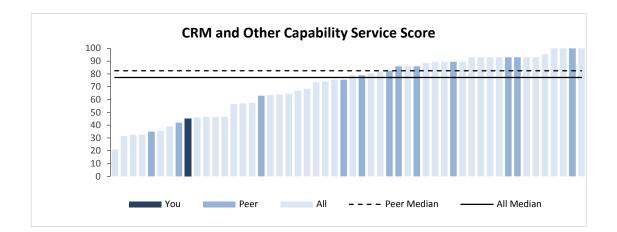
Members prefer to get through to a knowledgeable person who can answer their questions immediately. Irritation increases rapidly with the number of menu layers.

Receptionists are often more irritating than a menu layer because of the need to explain your needs twice, incorrect redirection, etc.

3. Surve	3. Survey questions used				
		You	Peer Avg		
Q37	Do you have a menu system that callers negotiate before speaking to someone? a) If yes, what is the average number of menu layers that must be navigated before	Yes	85% Yes		
	a caller can speak to a live person?	3	2		
Q38	When a member calls in, is the first point of human contact usually a receptionist(s) who transfers a high proportion of calls elsewhere in the organization? (indicate no				
	if most calls go directly to a call center)	No	8% Yes		

d. CRM and other capability

Your service score for CRM and other capability was 45 out of 100. This was below the peer median of 83.



d. CRM and other capability

coring	method	Your	You
		Data	Scor
	If you are able to provide the following information on an immediate real-time basis		
	or conduct the following transactions over the phone:		
+ 9	estimate of the member's pension at retirement	No	0.0
+ 10	estimate is linked to the member's actual account data	n/a	0.0
+ 6	model alternate annuity payment scenarios	n/a	0.0
+ 6	provide refund or transfer value if member exited employment at time of call	Yes	6.0
+ 3	provide pensionable salary	Yes	3.0
+ 3	provide service credit history including gaps	Yes	3.0
+ 6	estimate cost to purchase service credit	No	0.0
+ 6	change address	Yes	6.0
+ 6	change banking information	No	0.0
+ 6	add or change email address	Yes	6.0
	if you administer a DC plan:		
+ 3	provide current value of the DC account	n/a	0.0
+ 6	estimate of the value of the DC account at retirement	n/a	0.0
+ 6	switch investment options	n/a	0.0
	If you offer the following tools to help serve callers better:		
+ 3	record of the member's previous calls to the system	Yes	3.0
+ 3	copies of recent correspondence online	Yes	3.0
+ 3	knowledge based online help system available for use by the service		
	representative	Yes	3.0
+ 3	most recent member statement	Yes	3.0
+ 3	beneficiary information	Yes	3.0
+ 3	toll free number	Yes	3.0
+ 3	workflow system with the real-time status of open items	Yes	3.0
+ 3	call volume projections	No	0.0
	Total score		45.0

2. Rationale for the scoring method

You can serve your members better if you have real time access to all of their records, have tools that enable you to provide immediate, informed and accurate answers to their questions, and can conduct transactions over the phone.

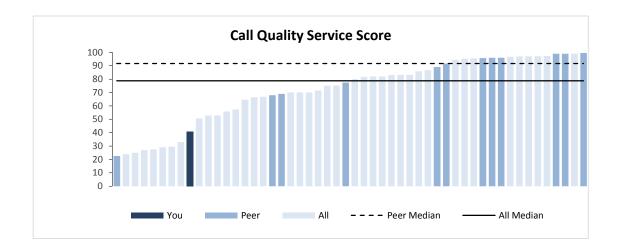
Your ability to serve members is greatly reduced if your capabilities or policies prevent you from answering questions over the phone.

d. CRM and other capability

3. Surve	y questions used	You	Peer Avg
Q44	When a member calls in, do you have immediate computer access to the following		
	member data:	Vaa	050/ V-
	a) Record of the member's previous calls to the system?	Yes	85% Yes
	b) Copies of recent correspondence online?	Yes	92% Yes
	c) Knowledge based on-line help system available for use by the service		0=0/1/
	representative?	Yes	85% Ye
	d) Most recent member statement?	Yes	100% Ye
	e) Beneficiary information?	Yes	100% Ye
Q45	Do your service representatives have real-time access to a workflow system that lets		
	them know the status of open items?	Yes	85% Yes
Q46	Do you provide the following information on an immediate real-time basis to		
	members over the phone?		
	a) Estimates of the member's pension at retirement?	No	69% Ye
	a1) Can you easily model and provide alternate annuity payment scenarios? [i.e.,		
	joint and 50% survivor, joint and 70% survivor, etc.]	n/a	69% Ye
	a2) Is the estimate based on an interactive benefit calculator linked to the		
	member's actual account data?	n/a	69% Ye
	b) Refund or transfer value assuming the member exited employment at the time of		
	the call?	Yes	92% Ye
	c) Pensionable salary?	Yes	92% Ye
	d) Service credit history including gaps?	Yes	92% Ye
	e) Cost to purchase service credit?	No	69% Ye
	f) If you administer a DC plan:		
	f1) Current value of the DC account?	n/a	100% Ye
	f2) Estimate of the value of the DC account at retirement?	n/a	80% Ye
Q47	Can members calling in perform the following transactions over the phone:		
	a) Change address?	Yes	69% Ye
	b) Add or change email address?	Yes	77% Ye
	c) Change payment instructions? [i.e., bank account]	No	23% Ye
	d) If you administer a DC plan, switches to investment options?	n/a	25% Ye
Q49	Do you have and use tools to help you project call volumes?	No	85% Ye
050			
Q50	Do you have a toll free number (or a number where members are only charged the		
	cost of a local call no matter where they are located) that members can call to get a	Voc	1000/ V
	real person (not just an info line)?	Yes	100% Ye

e. Call quality

Your service score for call quality monitoring was 41 out of 100. This was below the peer median of 92.



1. Scoring	1. Scoring method		Your
		Data	Score
	Call availth vacanitaving		
	Call quality monitoring		
+ 55	if you review your staff's responses to member calls for coaching purposes 4 or		
	more times per month; otherwise 13.75 X # of times per month you review calls	1	13.8
+ 15	if the review is based on listening in on a recording (versus a live call)	Both	15.0
	First contact resolution		
+ 30	if 100% of calls are satisfied by their first contact, 0 if 50% or fewer calls are satisfied		
	by the first contact, otherwise 30 - 50 X (1 - % satisfied by the first contact) [Subject		
	to a minimum score of 0, and 12 if not measured]	untracked	12.0
	Total score		40.8

e. Call quality

2. Rationale for the scoring method

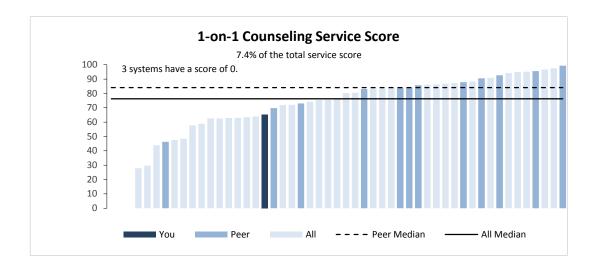
Regularly monitoring and coaching your staff responses to member calls will improve quality and service. Monitoring recordings is superior to listening in live because it allows more time for review and it allows staff to listen to themselves.

It is higher service if a caller's questions are immediately satisfied by the first contact without being transferred.

3. Surve	y questions used		
		You	Peer Avg
Q42	c) % of calls satisfied by the first contact?	untracked	91%
Q48	Do you review your staff's responses to member calls for coaching purposes on a regular basis? [As opposed to intermittent or only while training new service		
	representatives, etc.]	Yes	92% Yes
	a) How many calls per agent per month (on average) do you monitor?	1	7
	b) Are you listening in on a live call or a recording?	Both	50% Live

2C 1-on-1 Counseling

Your service score for 1-on-1 counseling was 65 out of 100. This was below the peer median of 84.

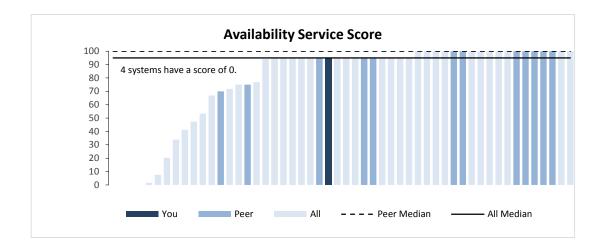


Your service score for 2c 1-on-1 counseling is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

1-on-1 Counseling Service Score Components				
		Your		
	Weight	Score		
a. Availability	50%	95.0		
b. Field locations	20%	23.6		
c. Wait times	20%	25.0		
d. Capability	10%	80.0		
Weighted Total	100%	65.2		

a. Availability

Your service score for availability was 95 out of 100. This was below the peer median of 100.



1. Scoring	1. Scoring method Your		Your
		Data	Score
+ 70	if members counseled 1-on-1 as a % of your active members is 1%* or more, otherwise 7,000 X number of members counseled 1-on-1 as a % of active members	6.0%	70.0
+ 25	if 1-on-1 counseling is freely available, without limitations	Yes	25.0
+ 5	if 1-on-1 counseling is available outside of normal working hours, otherwise 0	No	0.0
	Total score		95.0

^{*} The limit above which a perfect score is achieved is shifted downwards from a maximum of 1% linearly with the fraction of total pension inceptions that occur online (e.g. if 50% of your total inceptions occur online, the limit is set to 0.5%).

2. Rationale for the scoring method

Higher volumes relative to the number of pension inceptions occuring offline imply greater availability and value.

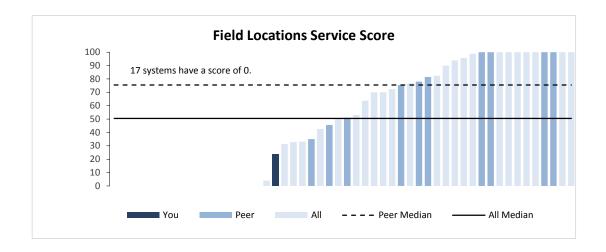
Members prefer freely available access to counseling with no time period limits, no limits on the number of sessions, etc.

a. Availability

3. Survey	3. Survey questions used				
		You	Peer Avg		
Q56	Total number of members counseled 1-on-1 (A)	8,355	10,007		
Q5	Active Members (B)	138,542	146,992		
	Members counseled 1-on-1 as a percentage of active members (A / B)	6.0%	7.5%		
Q57	Is 1-on-1 retirement counseling a freely available option for most members? [If the only 1-on-1 counseling you do is for VIPs, disability, exceptions and emergencies then your answer should be no.]	Yes	100% Yes		
Q58	Do you limit 1-on-1 counseling by: a) Requiring that members be within a certain time period of earliest possible retirement? b) Placing a limit on the number of counseling sessions a member can request? c) Indicating that members should contact their employers or unions first for counseling? d) Other (describe)?	No No No No	8% Yes 8% Yes 8% Yes 0% Yes		
Q61	Do you offer 1-on-1 counseling sessions after normal working hours, such as evenings and/or weekends?	No	62% Yes		

b. Field locations

Your service score for field locations was 24 out of 100. This was below the peer median of 76.



1. Scoring method		Your	Your
		Data	Score
+ 70	if the number of 1-on-1 sessions located in the field as $\%$ of total sessions is 25% or more, otherwise 280 X $\%$ of total sessions located in the field	8.4%	23.6
+ 30	if 75% or more of your 1-on-1 field sessions are held at locations separate from the employer, otherwise 40 X % of field sessions separate from the employer	0%	0.0
	Total score		23.6

2. Rationale for the scoring method

A combination of in-house and in-the-field locations provides the best access for members to meet with you.

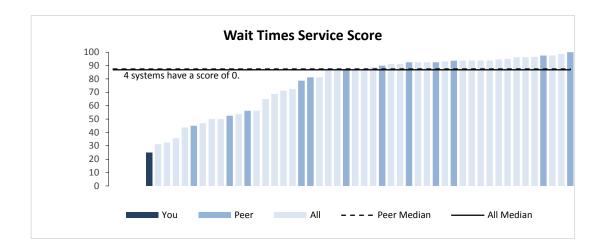
Field locations separate from the employer are preferred because they help preserve confidentiality and privacy.

b. Field locations

2 Curvo	av questions used		
5. Surve	ey questions used	You	Peer Avg
Q56	Provide the number of members counseled 1-on-1 that were:		
QSO	b) In the field at locations separate from the member's place of employment? (A)	0	1,523
	c) At the member's place of employment?	<u>704</u>	<u>705</u>
	Total number of members counseled 1-on-1 in the field (B)	704	2,228
	% of 1-on-1 field sessions separate from employer (A / B)	0%	58%
	Total number of members counseled 1-on-1 (C)	8,355	10,007
	% of members counseled at 1-on-1 sessions held in the field (B / C)	8.4%	23.2%

c. Wait times

Your service score for wait times was 25 out of 100. This was below the peer median of 88.



1. Scoring	1. Scoring method		Your
		Data	Score
+ 25	if you offer pre-scheduled counseling	Yes	25.0
+ 25	If there is no wait time for pre-scheduled in-house counseling sessions,		
	otherwise 25 - 1.25 X average number of days of wait time		
	[Subject to a minimum score of 0]	40.0	0.0
		days	
+ 25	If there is no wait time for walk-in counseling,		
	otherwise 25 - 1.25 X average number of minutes of wait time		
	[Subject to a minimum score of 0]	30	0.0
		min.	
+ 25	if 0% of walk-ins requesting a counseling session were turned away because the wait		
	was too long, otherwise 25 - 125 X % of walk-ins turned away		
	[Subject to a minimum score of 0]	30.0%	0.0
	Total score		25.0

2. Rationale for the scoring method

The shorter the wait times, the better.

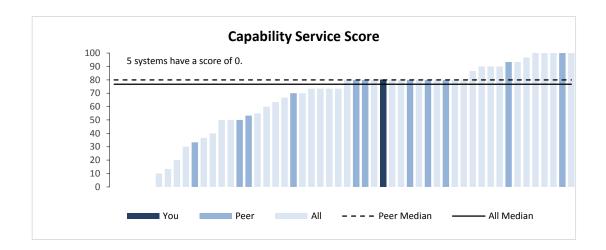
Some people like to be able to schedule an appointment. Also, a pre-scheduled session gives you the opportunity to prepare in advance.

c. Wait times

3. Surve	3. Survey questions used				
		You	Peer Avg		
Q59	Do you provide counseling for walk-in traffic? a) On average, how long does a walk-in member that requests a counseling session	Yes	92% Yes		
	typically have to wait till they can meet with a counselor? (minutes) b) Approximately what percentage of walk-in members requesting a counseling session are turned away, or scheduled for another time, or leave with their needs	30	9 min		
	unsatisfied because they decide the wait was too long?	30.0%	2.6%		
Q60	Do you offer prescheduled 1-on-1 counseling? a) If yes, how long does a member that requests a pre-scheduled counseling session	Yes	92% Yes		
	typically have to wait, in business days, before he can meet with a counselor for an in-house 1-on-1 counseling session?	40.0	9.5 days		

d. Capability

Your service score for capability was 80 out of 100. This was equal to the peer median.



1. Scoring method		Your	Your
		Data	Score
+ 50	if you can provide a new written estimate during each of walk-in and pre-schedule inhouse, otherwise 25 for walk-in and 25 for pre-scheduled in-house	2 Yes	50.0
+ 10	if you can provide accurate service credit purchase cost estimates during each of		
	walk-in and pre-schedule in-house, otherwise 5 for walk-in and 5 for pre-scheduled in-house	2 Yes	10.0
+ 20	if counseling takes place in a private office with a door during each of walk-in and pre-schedule in-house, otherwise 19 for walk-in and 10 for pre-scheduled in-house	2 Yes	20.0
+ 20	Coaching if you regularly review counselors for coaching purposes	No	0.0
	Total score		80.0

d. Capability

2. Rationale for the scoring method

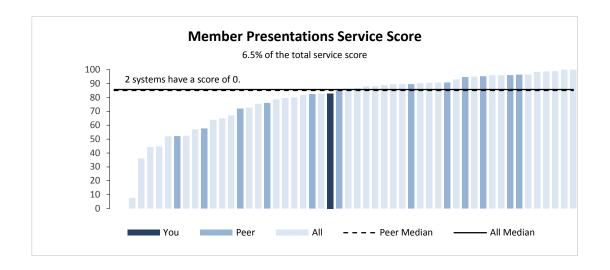
Members needs are best met when you can have a complete discussion about their retirement options. This includes being able to provide alternative scenarios to answer 'what-if' questions as they arise during 1-on-1 counseling sessions.

Members feel more comfortable if they can discuss their retirement income in an office with a door. If you review sessions for coaching purposes, this suggests that you monitor quality.

y questions used		
	You	Peer Avg
·		
a1) Walk-in traffic in-house?	Yes	83% Yes
a2) Pre-scheduled in-house?	Yes	92% Yes
a3) In-the-field?	No	67% Yes
c) Do you provide new written estimates on a real-time basis for anybody that wants		
one?		
c1) Walk-in traffic in-house?	Yes	75% Yes
c2) Pre-scheduled in-house?	Yes	83% Yes
c3) In-the-field?	No	58% Yes
d) Do you provide an accurate cost to purchase service credit on a real-time basis for		
anybody that wants one?		
d1) Walk-in Traffic In-house?	Yes	75% Yes
d2) pre-scheduled In-house?	Yes	83% Yes
d3) In-the-field?	No	58% Yes
Do you review 1-on-1 counseling sessions for coaching purposes on a regular basis?		
[As opposed to intermittent or only while training new counselors, etc.]	No	54% Yes
	a) Do almost all sessions take place in a private office with a door (versus a cubicle, etc.)? a1) Walk-in traffic in-house? a2) Pre-scheduled in-house? a3) In-the-field? c) Do you provide new written estimates on a real-time basis for anybody that wants one? c1) Walk-in traffic in-house? c2) Pre-scheduled in-house? c3) In-the-field? d) Do you provide an accurate cost to purchase service credit on a real-time basis for anybody that wants one? d1) Walk-in Traffic In-house? d2) pre-scheduled In-house? d3) In-the-field? Do you review 1-on-1 counseling sessions for coaching purposes on a regular basis?	a) Do almost all sessions take place in a private office with a door (versus a cubicle, etc.)? a1) Walk-in traffic in-house? a2) Pre-scheduled in-house? 3) In-the-field? C) Do you provide new written estimates on a real-time basis for anybody that wants one? c1) Walk-in traffic in-house? c2) Pre-scheduled in-house? c3) In-the-field? d) Do you provide an accurate cost to purchase service credit on a real-time basis for anybody that wants one? d1) Walk-in Traffic In-house? d2) pre-scheduled In-house? yes d3) In-the-field? No Do you review 1-on-1 counseling sessions for coaching purposes on a regular basis?

2D Presentations and Group Counseling

Your service score for member presentations was 83 out of 100. This was below the peer median of 85.



1. Scoring	method	Your	Your
		Data	Score
	Availability		
+ 38	if attendees as a percent of active members is 2.5%* or more,		
	otherwise 1,520 X attendees as percent of active members	3.8%	38.0
+ 23	if 95% or more of your presentations are held in the field or via live webcast,		
	otherwise 23 X (percent field presentations / 95%)	100.0%	23.0
+ 5	if you offer presentations outside of normal working hours	No	0.0
	Group size		
+ 20	if average of 20 attendees or fewer per presentation, otherwise 20 - 0.5 for each		
	attendee over 20		
	[Subject to a minimum score of 0]	36.4	11.8
	<u>Types</u>		
+ 12	if you have 3 or more different targeted types of presentations (excluding		
	healthcare and benefit changes), otherwise 4 X the number of types of		
	presentations	2	8.0
	Coaching		
+ 2	if you regularly review presenters for coaching purposes	Yes	2.0
	Total score		82.8

^{*} The limit above which a perfect score is achieved is shifted downwards from a maximum of 2.5% linearly with the fraction of total pension inceptions that occur online (e.g. if 50% of your total inceptions occur online, the limit is set to 1.25%).

2D Presentations and Group Counseling

2. Rationale for the scoring method

Higher volumes relative to the number of pension inceptions occuring offline imply greater availability and value.

More choices of location and times provide easier access and convenience.

Smaller groups are preferred to larger groups. They provide more opportunities for individual attention.

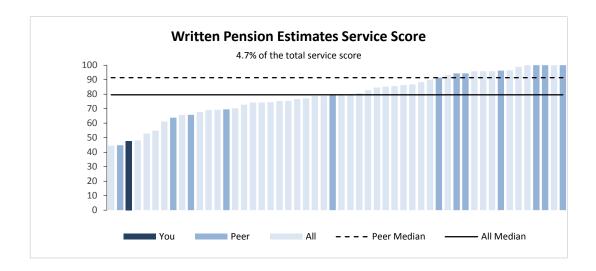
3. Survey	questions used		
		You	Peer Avg
Q68	<u>Availability</u> What was the total number of attendees at all of the presentations? [Exclude		
	benefit fair attendees] (A)	5,200	7,423
Q5	Active Members (B)	138,542	146,992
	Attendees as a percent of active members (A / B)	3.8%	5.3%
Q67	How many presentations (including group counseling sessions) for members or annuitants [exclude presentations to employers] did you do that took place:		
	a) In-house?	0	32
	b) In the field? (C)	97	183
	c) Via live webinar? [i.e., a real-time, online presentation that allows two-way		
	communication between the presenter and audience] (D)	<u>46</u>	<u>19</u>
	Total Presentations (E)	143	234
	In the field or webcast presentations as a percent of total presentations $(C + D) / E$	100.0%	82.7%
Q70	Do you offer presentations after normal working hours such as evenings and/or		
Q/0	weekends?	No	92% Yes
	Group size Average number of attendees per presentation (A / E)	36.4	39.8
	- · · · · · · · · · · · · · · · · · · ·		

2D Presentations and Group Counseling

3. Surve	ey questions used		
		You	Peer Avg
	<u>Types</u>		
Q69	Did you do specific presentations for members, in the past fiscal year, targeted solely for:		
	a) New members?	Yes	77% Yes
	b) Members in mid career?	No	54% Yes
	c) Members approaching retirement or ready to retire?	Yes	100% Yes
	f) Other? (Please describe)	<u>No</u>	75% Yes
	Total presentation types	2	3
	Coaching		
Q71	Do you review presenters for coaching purposes on a regular and recurring basis?		
	[As opposed to intermittent or only while training new presenters, etc.]	Yes	85% Yes

2E Written Pension Estimates

Your service score for written pension estimates was 48 out of 100. This was below the peer median of 91.

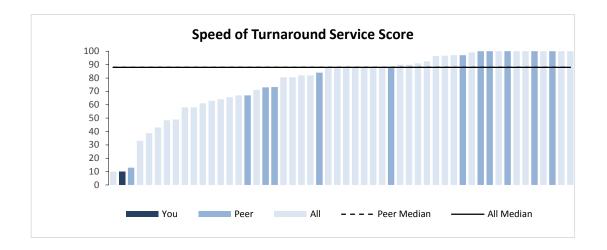


Your service score for 2e written pension estimates is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Written Pension Estimates Service Score Components			
	Your		
	Weight	Score	
a. Speed of turnaround	35%	10.0	
b. Content	25%	70.0	
c. Alternative channels	40%	67.0	
Weighted Total	100%	47.8	

a. Speed of turnaround

Your service score for speed of turnaround was 10 out of 100. This was below the peer median of 88.



1. Scoring	method	Your	Your
		Data	Score
+ 90	if the weighted average turnaround time for providing written pension estimates and online pension estimates* is less than 1 day, otherwise 90 - 3 for each day beyond 1 required to send estimates	180 days	0.0
+ 10	if you regularly measure the time to provide an estimate	Yes	10.0
	Total score [Subject to a minimum score of 0]		10.0

^{*} online pension estimates are only included in the average if they can be used to retire

2. Rationale for the scoring method

A perfect score requires that you can turn around an estimate the same day as the request. From a member's perspective, receiving a requested estimate quickly is higher service.

We assume that it is higher service if you regularly measure turnaround times because we believe that what gets measured, gets managed.

a. Speed of turnaround

3. Survey	questions used		
		You	Peer Avg
Q73	How many written pension estimates did you mail out pursuant to individual member requests? [Exclude estimates prepared during counseling sessions and not mailed in advance.] (A)	14,303*	26,046
Q75	On average, how many business days does it take to provide a written pension estimate from the time of initial request from a member? [Exclude time in the mail.] (B) a) Is this a number you regularly measure and track (versus an estimate)?	180 days Yes	20 days 92% Yes
Q81	Indicate whether the following capabilities are available on your website and provide volumes: c) Benefit calculator in secure area linked to member's salary and service data? If yes, volume? (C) p) Submit a retirement application online? Weighted average estimate turnaround time¹ (A x B) / (A + C)	Yes 15,598 No 180 days²	85% Yes 161,093 26% Yes 19.5 days

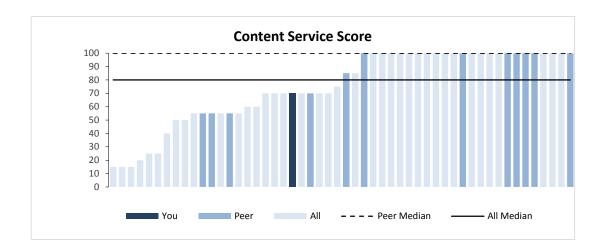
^{1.} The weighted average estimate turnaround time assumes that: (i) online estimates are processed instantaneously; (ii) the volume of online estimates (C) is counted as zero if members cannot apply for retirement online.

^{2.} Were members able to apply for retirement online, your weighted average estimate turnaround time would have been reduced to 86.1 days, because the volume of online estimates would have then been included in the calculation.

^{*} Your response was 'unknown'. A default was applied. See 'Appendix E' for details.

b. Content

Your service score for content was 70 out of 100. This was below the peer median of 100.



1. Scoring r	method	Your	Your
		Data	Score
+ 30	if you clearly address if and how the pension benefit is inflation protected	No	0.0
+ 15	if you discuss the effects of social security	Yes	15.0
+ 15	if you discuss alternative scenarios that could improve the pension	Yes	15.0
+ 40	if you model alternative pension payment options	Yes	40.0
	Total score		70.0

b. Content

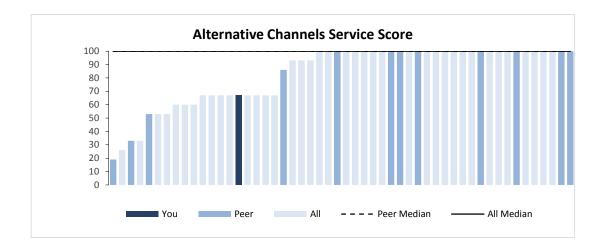
2. Rationale for the scoring method

The more members understand about how their pension is affected by inflation, social security, etc. the better they can plan for retirement. A perfect score requires that you provide all this information in a written pension estimate.

3. Surve	y questions used		
		You	Peer Avg
Q78	Do your written pension estimates (including cover letters, etc. sent with the estimate):		
	a) Clearly address if and how the pension is inflation protected (or not protected)? b) If your pension is coordinated with or reduced by social security (or CPP in	No	62% Yes
	Canada) is the impact explained? c) Discuss alternative scenarios that could improve the pension such as purchasing	Yes	57% Yes
	service credit or working longer?	Yes	92% Yes
	d) Model alternative retirement payment options?	Yes	100% Yes

c. Alternative channels

Your service score for alternative channels was 67 out of 100. This was below the peer median of 100.



1. Scoring	method	Your	Your
		Data	Score
+ 100	if you offer pension estimates by member statement, the website and call center, otherwise 67 if you offer 2 options, 33 if you offer 1, 0 if you offer none	2 options	67.0
- 7	if you limit the timeframe when members can request pension estimates	No	0.0
- 7	if you place a limit on the number of written pension estimates a member can request	No	0.0
	Total score		67.0

2. Rationale for the scoring method

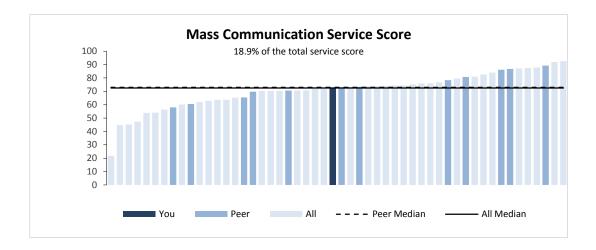
More choices in obtaining a pension estimate provides greater access and convenience for your members.

c. Alternative channels

3. Surve	y questions used		
		You	Peer Avg
Q46	Do you provide the following information on an immediate real-time basis to members over the phone? [If you do not have real-time access to the information or if your policy is not to give the information over the phone because of security or other concerns then your answer should be 'no'.] a) Estimates of the member's pension at retirement?	No	69% Yes
Q76	Can members request and obtain a written pension estimate at any time during their career? [As opposed to, for example, requiring that the member be within a certain time period of earliest potential retirement before they can request a pension estimate.]	Yes	77% Yes
Q77	Do you place a limit on the number of written pension estimates that a member can request?	No	23% Yes
Q81	Indicate whether the following capabilities are available on your website and provide volumes: a) Benefit calculator in non-secure area? b) Benefit calculator in secure area not linked to member data? c) Benefit calculator in secure area linked to member's salary and service data?	Yes No Yes	46% Yes 23% Yes 85% Yes
Q94	Do your statements for active members include: e) An estimate of the future pension entitlement based on age scenario modeling or assuming the member continues to work until earliest possible retirement?	Yes	85% Yes

2F Mass Communication

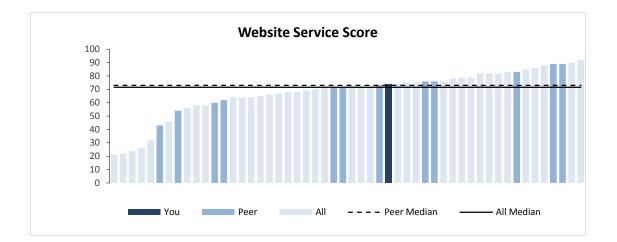
Your service score for mass communication was 72 out of 100. This was below the peer median of 73.



Your service score for 2f mass communication is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Mass Communication Service Score Components				
		Your		
	Weight	Score		
a. Website	60%	74.0		
b. News and targeted communication	15%	55.0		
c. Member statements	25%	78.0		
Weighted Total	100%	72.2		

Your service score for the website was 74 out of 100. This was above the peer median of 73.



1. Scoring	method	Your	Your
		Data	Score
	<u>Calculators</u>		
+ 10	if you have an interactive calculator on your website	Yes	10.0
+ 20	if the calculator is linked to member data	Yes	20.0
+ 2	if you can calculate the cost of purchasing service credit	Yes	2.0
	Salary and service credit	163	2.0
+ 3	if you offer secure access to both salary and service credit data	Yes	3.0
+ 3	if salary and service credit data is up-to-date to the most recent pay period	No	0.0
+ 2	if a complete annual history since employment began of salary and service credit		0.0
_	data is available	No	0.0
	Secure access design		
+ 4	if members can get online immediately upon registering	Yes	4.0
+ 2	if you greet members by name upon log-in	Yes	2.0
- 4	if you force members to acknowledge a disclaimer every time they log-in or use the		
	calculator	No	0.0
+ 1	if inactive members have access to the secure member area	Yes	1.0
+ 2	if you offer a digital file which includes a history of recent correspondence and		
	member documents	No	0.0
	<u>Forms</u>		
+ 8	if all forms are available for download (or the transaction or forms can be completed		
	online), 6 if most, 2 if some	Most	6.0
	Other tools and transactions		
+ 1	register for counseling sessions in real-time	No	0.0
+ 1	register for presentations	Yes	1.0
+ 2	if you offer live chat	No	0.0
+ 3	change address	Yes	3.0
+ 2	change beneficiary	No	0.0
+ 3	add or change email address	Yes	3.0
+ 1	reset password	Yes	1.0
+ 2	change annuity deposit banking information	Yes	2.0
+ 2	change tax withholding amount	Yes	2.0
+ 3	download or print tax receipts	Yes	3.0
+ 3	view pension payment gross amounts and deductions (payment stubs)	Yes	3.0
+ 3	submit a retirement application online	No	0.0
+ 2	if less than 50% of pensions initiated online require follow-up documents or		
	signatures to be mailed in	n/a	0.0
+ 1	check status of retirement application	n/a	0.0
+ 3	apply for a transfer-out or refund	n/a	0.0
+ 2	download member statement	Yes	2.0
+ 3	upload documents in lieu of mailing hardcopies	No	0.0
+ 3	view pensionable earnings and/or service without downloading	Yes	3.0
+ 3	access videos online	Yes	3.0
	Total score		74.0

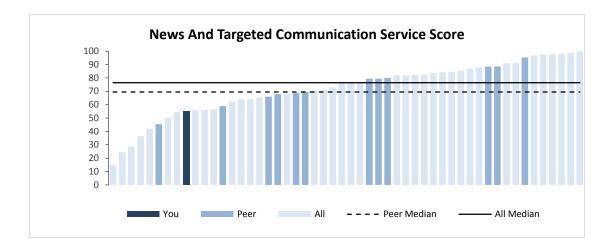
2. Rationale for the scoring method

Members visit your website looking for information. The more you can provide, the more tailored and customized to the member, and the easier it is to get online, the better.

3. Surve	ey questions used	You	Peer Avg
	Coloulators		
Q81	<u>Calculators</u> Indicate whether the following capabilities are available on your website and		
Qoi	provide volumes:		
	a) Benefit calculator in non-secure area?	Yes	46% Yes
	b) Benefit calculator in secure area not linked to member data?	No	23% Yes
	c) Benefit calculator in secure area linked to member's salary and service data?	Yes	85% Yes
	d) Service credit purchase calculator?	Yes	62% Yes
	Salary and service credit		
	v) View pensionable earnings and/or service without downloading?	Yes	92% Yes
	v1) Are both salary and service data available?	Yes	100% Yes
	v2) Is online data up-to-date to the most recent pay period?	No	58% Yes
	v3) Is a complete annual history from the beginning of employment provided?	No	58% Yes
	Secure access design		
Q80	Does your website have a secure member area where members can access their		
	own data?	Yes	100% Yes
	c) If a member wants to register for the first time, does he/she have to wait for a		
	password in the mail?	No	8% Yes
	d) Do you welcome the member by name on the home page of the secure member		4000/1/
	area?	Yes	100% Yes
	e) Are users required to acknowledge a disclaimer every time they log in?	No	15% Yes
	f) Are users required to acknowledge a disclaimer every time they generate a pension estimate?	No	38% Yes
	g) Do inactive members have access to the secure member area?	Yes	100% Yes
Q81	s) Secure mailbox or digital file including history of recent correspondence and	103	100/0103
QOI	member documents?	No	31% Yes
	Forms		
Q79	Are all, most or some of your forms available online for either completion or		
	downloading?	Most	39% All

s. Surve	y questions used	You	Peer Av
	Other tools and transactions		
Q81	Indicate whether the following capabilities are available on your website and		
	provide volumes:		
	e) Register for 1-on-1 counseling sessions?	No	38% Ye
	e1) If yes, does the member have real-time access to available dates and times?	n/a	100% Ye
	f) Register for presentations?	Yes	69% Ye
	g) Live chat?	No	0% Yes
	h) Change address?	Yes	100% Ye
	i) Change beneficiary?	No	31% Ye
	j) Change email address?	Yes	92% Ye
	k) Reset password?	Yes	85% Ye
	I) Change banking information for direct deposit?	Yes	54% Ye
	m) Change tax withholding amount?	Yes	77% Ye
	n) Download or print duplicate tax receipts? [i.e., 1099s in the U.S.]	Yes	85% Ye
	o) View pension payment details? [i.e., gross amounts, deductions]	Yes	100% Y
	p) Submit a retirement application online?	No	26% Ye
	If yes:		
	p1) Does the online application provide an estimate, final value or neither of the		
	annuity payment the member will receive?	n/a	1% Fina
	p2) Approximately what % of retirements submitted online require follow-up		
	documents or signatures to be mailed in?	n/a	63.3%
	q) View status of online retirement application?	n/a	50% Ye
	r) Apply for a refund or transfer-out?	n/a	25% Ye
	t) Download member statement? [i.e., Adobe format]	Yes	85% Ye
	u) Upload documents (such as birth certificates)?	No	15% Ye
ე82	Do you have videos that members can access online?	Yes	85% Ye

Your service score for newsletters was 55 out of 100. This was below the peer median of 70.



1. Scoring	method	Your	Your
		Data	Score
	Newsletters Newsletters Newsletters Newsletters		
+ 20	if active members receive a newsletter 2 or more times per year, 14 if 1 time,		
1 20	otherwise 0	6 times	20.0
	otherwise o	o times	20.0
+ 20	if annuitants receive a newsletter 2 or more times per year, 14 if 1 time,		
	otherwise 0	6 times	20.0
	outer wise o	0 000	
+ 2	if inactive members receive a newsletter at least annually	6 times	2.0
+ 25	if you have different newsletters for 3 or more of the following segments: all		
	members or actives and annuitants, actives or actives and inactives, inactives,		
	annuitants, age based, gender based, employer/employment category, other. 14 if 2		
	segments, otherwise 0	1	0.0
	Other communication		
+ 10	if you issue a 'welcome' kit to new members	Yes	10.0
	if you send out personalized letters to members:		
+ 2	that are new (this letter could be part of a welcome kit)	Yes	2.0
+ 7.5	approaching eligibility, or becoming eligible, for retirement	No	0.0
+ 2	about to become vested in pension benefits	No	0.0
+ 2	eligible, or likely eligible, to purchase service credit	No	0.0
+ 2	with no beneficiary on file	No	0.0
+ 1	about to become vested for disability benefits	No	0.0
+ 1	whose disability benefits are able to expire	No	0.0
+ 1	with no email address on file	No	0.0
+ 1	who have never visited the secure member area	No	0.0
+ 1	if you publish member statements, annual reports, newsletters, the website and		
	brochures in a language other than English, otherwise 0.2 for each publication		
	translated	5 publications	1.0
		,	-
+ 2.5	if you solicit member feedback on your publications through focus groups, or		
	surveys	No	0.0
	Total score		55.0

2. Rationale for the scoring method

Targeted milestone events, such as joining the system, are good opportunities to communicate the value of the benefit.

Communicating more frequently by newsletter, and delivering personalized, and customized messages for different target audiences is higher service.

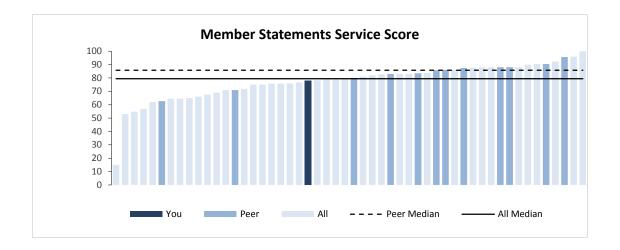
Actively soliciting feedback on your communication materials should lead to better materials.

	ey questions used	Yo	u	Peer A	vg
Q84	Indicate whether you sent newsletters or news magazines (in either electronic or paper format) last year to any of the following member segments, and if yes, the number of times it was sent: a) All members (active, inactive and annuitants)? b) Active and inactive members? c) Active members and annuitants?	Yes No No	# 6 n/a n/a	31% Yes 15% Yes 0% Yes	# 4 2 n/a
	d) Active members and armittants: d) Active members only? e) Inactive members only? f) Annuitants only? g) Age segments (i.e., under 35, 35-50, 50 plus)?	No No No No	n/a n/a n/a n/a n/a	62% Yes 15% Yes 77% Yes 15% Yes	4 3 3 5
	h) Women only or men only?i) Employer or employment category (i.e., a different newsletter for	No	n/a	0% Yes	n/a
	teachers vs. bus drivers)? j) Other? (describe your other newsletter segments below) n/a Total Segments	No <u>No</u> 1	n/a n/a	23% Yes 23% Yes 2.6	11 10
Q85	Total Segments Are new members issued a 'welcome' kit describing their benefits? If yes:	Yes		92% Yes	
	a) If yes, does it include a personalized letter addressing the new member by name?	Yes		58% Yes	

	ey questions used	You	Peer Avg
Q87	Do you automatically send targeted letters or emails addressed to members by name triggered by the following milestones:		
	a) Vested for pension benefits (if member is not vested immediately)?	No	33% Yes
	b) Vested for disability benefits (if member is not vested immediately)?	No	33% Yes
	c) Expiration of disability benefits for inactive members or members that have exited	No	33% Yes
	d) Approaching eligibility, or becoming eligible, for retirement?	No	23% Yes
	e) Eligibility or likely eligibility, to purchase service credit?	No	15% Yes
	f) Missing beneficiary?	No	15% Yes
	g) Missing email address?	No	0% Yes
	h) Never visited the secure member area?	No	15% Yes
	i) Other milestone communication? (describe below)	No	62% Yes
Q88	Do you actively solicit member feedback on your publications through:		
	a) Focus groups?	No	38% Yes
	b) Tear out surveys or feedback cards in the publications themselves?	No	15% Yes
	c) Surveys sent to members who request a publication?	No	8% Yes
	d) Other (describe)?	n/a	33% Yes
Q89	Do you publish any of the following materials in a language other than English (or other than French in Quebec and France), or in Braille:		
	a) Member statements?	Yes	8% Yes
	b) Annual report?	Yes	8% Yes
	c) Newsletters?	Yes	8% Yes
	d) Website?	Yes	31% Yes
	e) Brochures and pamphlets?	Yes	15% Yes

c. Member statements

Your service score for member statements was 78 out of 100. This was below the peer median of 86.



1. Scoring	method	Your	Your
		Data	Score
	Accuracy and timeliness		
+ 10	if no complaints about data errors, otherwise 10 x (1 - 25 X percent of members that		
	complain about data errors)		
	[Subject to a minimum score of 0]	2.0%	5.0
+ 15	if data is current to 1 month, otherwise 15 - 2 for each month in excess of 1 month		
	out of date		
	[Subject to a minimum score of 0]	2.0	13.0
		months	
+ 5	if paper member statements mailed directly to the member's home	No	0.0
+ 5	if email or other electronic notice to members that the statement is available in the	No	0.0
	secure member area		
+ 5	if sent to inactive members annually or more frequently, otherwise 5 X times per		
_	year on average	1 time	5.0
	Content		
+ 10	if summarizes service credit	Yes	10.0
+ 10		Yes	10.0
_	if provides a historical summary of salary and sorvice credit earned each year	res No	
+ 5	if provides a historical summary of salary and service credit earned each year	_	0.0
+ 10	if shows refund value if you left at the statement date	Yes	10.0
+ 25	if shows estimate of future pension entitlement	Yes	25.0
	Total score		78.0

c. Member statements

2. Rationale for the scoring method

Up-to-date, accurate member statements provide one of your best opportunities to communicate the value of the benefit to members.

Showing an estimate of the future pension entitlement is more important than showing the refund value because the pension entitlement is potentially much more valuable.

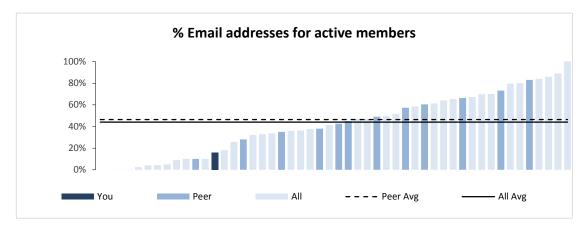
Sending member statements directly to active members' homes, via email or other electonic notice, rather than through employers is higher service because the statements are less likely to get lost, and it is more confidential.

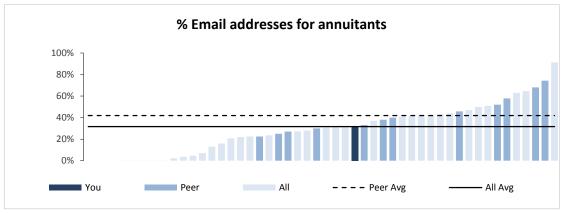
		You	Peer Avg
Q90	How many times per year (annually = 1, every 2nd year = 0.5, every 3 years = 0.33, every 5 years = 0.2) do you send member statements to:		
	a) Active members?	1 time	1.3 times
	b) Inactive members?	1 time	1.2 times
Q91	Approximately what % of members complain about the accuracy of data in their		
	member statements?	2.0%	0.6%
Q92	Indicate the approximate percentage breakdown of how you send member statements to active members:		
	a) Directed through the employer?	0.0%	7.6%
	b) Mailed directly to members' homes?	0.0%	66.8%
	c) Email or text message to members that the statement is available in the secure		
	member area?	0.0%	23.5%
Q93	On average, how current is an active member's data in the statements that the		
	member receives (in months)?	2.0	2 months
Q94	Do your statements for active members include:		
	a) Total accumulated service credit?	Yes	100% Yes
	b) Pensionable earnings?	Yes	92% Yes
	c) A historical summary of salary and service credit earned each year?	No	46% Yes
	d) The refund value if you left at the statement date?	Yes	100% Yes
	e) An estimate of the future pension entitlement based on age scenario modeling or		
	assuming the member continues to work until earliest possible retirement?	Yes	85% Yes

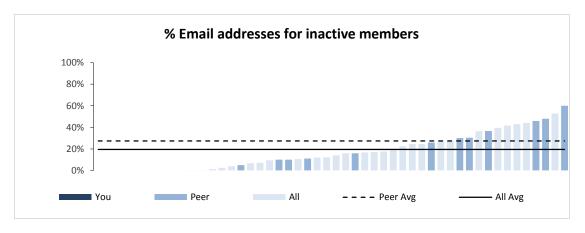
Electronic delivery

Systems are increasingly looking at cost effective and timely solutions for communicating with members. In particular, more systems are using email or other methods of electronic media to deliver newsletters, member statements and other forms of traditional, paper mass communications. CEM's service model captures this change.

The below graphs are indicators of how successful systems have been in gathering member email addresses:







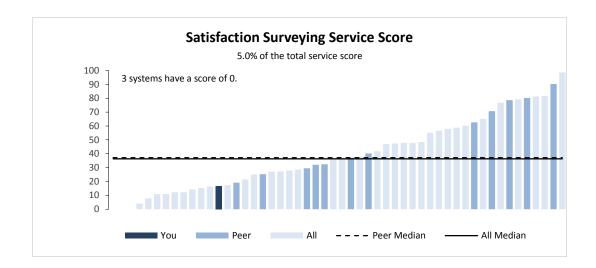
New media and other

New media and employer service is not currently included in the service score. But we are tracking these measures and may use them in the future.

Nowma	ndia questions			
new me	edia questions	You	Peer Avg	All Avg
Q95	Do you have a Facebook site? If yes:	Yes	62% Yes	54% Yes
	a) How often do you update your site?	Daily	145 times/year	133 times/year
Q96	Do you have a Twitter account? If yes:	Yes	62% Yes	58% Yes
	a) How many tweets did you post last year?	150	137	390
	b) How many followers do you have?	84	464	731
Q97	Do you have a mobile app? If yes:	No	0% Yes	8% Yes
	a) If yes, does your app contain information that is linked to the member's data?	n/a	n/a	50% Yes

Other n	nedia questions			
		You	Peer Avg	All Avg
Q82	Do you have videos that members can access online? If yes:	Yes	85% Yes	81% Yes
	a) How many different videos do you have for members online?b) What was the total number of new views for all streamed videos?c) What was the total number of downloads for all downloadable	36 14,053	17 10,806	19 16,990
	videos?	n/a	7,297	2,994

Your service score for satisfaction surveying was 17 out of 100. This was below the peer median of 37.



Your service score for satisfaction surveying is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Satisfaction Surveying Service Score Components				
		Do you	Your	
	Weight ¹	survey?	Score	
a. 1-on-1 counseling	18%	Yes	50.0	
b. Member presentations	12%	Yes	65.0	
c. Member telephone calls	13%	No	0.0	
d. Pension inceptions	18%	No	0.0	
e. Written pension estimates	11%	No	0.0	
f. Website - secure member area	8%	No	0.0	
g. Withdrawals and transfers-out	1%	No	0.0	
h. Purchases and transfers-in	7%	No	0.0	
i. Disability	10%	No	0.0	
Weighted Total	100%		16.9	

¹ Other systems may have slightly different activity weights than you. Their weights are reflective of the activities that they do.

. Scoring	method	Your	Your
		Data	Score
. 1-on-1	counseling		
	If you survey satisfaction with 1-on-1 counseling:	Yes	
+ 30	if the survey focuses primarily on 1-on-1 counseling.	No	0.0
+ 30	if the greatest length of time between the survey and the 1-on-1 counseling session		
	is 14 days or less .	7	30.0
+ 10	if surveys are continuous or more than 11 times per year, otherwise +8 if quarterly,	days	
	+3 if once per year.	Weekly	10.0
+ 10	if you can summarize results by service representative.	No	0.0
+ 10	if you can summarize results by topic covered.	No	0.0
+ 10	if survey is delayed at least one day from the session.	Yes	10.0
	Total		50.0
Membe	er presentations		
	If you survey satisfaction with member presentations:	Yes	
+ 35	if the survey focuses primarily on member presentations.	No	0.0
+ 35	if the greatest length of time between the survey and the presentation is 14 days or		
	less.	0	35.0
+ 10	if surveys are continuous or more than 11 times per year, otherwise +8 if quarterly,	days	
	+3 if once per year.	Weekly	10.0
+ 10	if you can summarize results by service representative.	Yes	10.0
+ 10	if survey is delayed at least one day from the session.	Yes	10.0
	Total		65.0
Membe	er telephone calls		
	If you survey satisfaction with member telephone calls:	No	
+ 30	if the survey focuses primarily on member telephone calls.	n/a	0.0
+ 30	if the greatest length of time between the survey and the telephone call is 14 days		
	or less.	n/a	0.0
+ 10	if surveys are continuous or more than 11 times per year, otherwise +8 if quarterly,		
	+3 if once per year.	n/a	0.0
+ 10	if you can summarize results by service representative.	n/a	0.0
+ 10	if you can summarize results by topic covered.	n/a	0.0
+ 10	if survey is delayed at least one day from the session.	n/a	0.0
	Total		0.0

. Scoring	method (continued)	Your Data	Your Score
. Pensior	ninceptions		
	If you survey satisfaction with pension inceptions:	No	
+ 40	if the survey focuses primarily on pension inceptions.	n/a	0.0
+ 40	if the greatest length of time between the survey and the pension inception is 14		
	days or less.	n/a	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly,		
	+6 if once per year.	n/a	0.0
	Total		0.0
Writter	n pension estimates		
	If you survey satisfaction with written benefit estimates:	No	
+ 40	if the survey focuses primarily on written benefit estimates.	n/a	0.0
+ 40	if the greatest length of time between the survey and receipt of an estimate is 14		
	days or less.	n/a	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly,		
	+6 if once per year.	n/a	0.0
	Total		0.0
Website	e - secure member area		
	If you survey satisfaction with website - secure member area:	No	
+ 40	if the survey focuses primarily on website - secure member area.	n/a	0.0
+ 40	if the greatest length of time between the survey and secure member area usage is		
	7 days or less.	n/a	0.0
+ 10	if surveys are continuous or more than 11 times per year, otherwise +8 if quarterly,	-	
	+3 if once per year.	n/a	0.0
+ 10	if you can summarize results by topic(s) browsed.	n/a	0.0
- 25%	if you survey 100% of unique users, -90% if you survey all users (versus a sample	·	
	such as every 100th user).	No	0.0
- 50%			
	(as opposed to a survey actively sent to the user via email or a pop up).	No	0.0
	Total [subject to a minimum score of 0]		0.0
Withdra	awals and transfers-out		
	If you survey satisfaction with withdrawals and transfers-out:	No	
+ 40	if the survey focuses primarily on withdrawals and transfers-out.	n/a	0.0
+ 40	if the greatest length of time between the survey and the refund, lump sum or	•	
-	transfer-out is 14 days or less.	n/a	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly,	•	
	+6 if once per year.	n/a	0.0
	Total	,	0.0

. Scoring	method (continued)	Your	Your
		Data	Score
. Purcha	ses and transfers-in		
	If you survey satisfaction with purchases and transfers-in:	No	
+ 40	if the survey focuses primarily on purchases and transfers-in.	n/a	0.0
+ 40	if the greatest length of time between the survey and the purchase or transfer-in is 7		
	days or less.	n/a	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly,		
	+6 if once per year.	n/a	0.0
	Total		0.0
Disabilit	у		
	If you survey satisfaction with disability:	No	
+ 40	if survey focuses primarily on disability.	n/a	0.0
+ 40	if the greatest length of time between the survey and the disability decision is 14		
	days or less.	n/a	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly,		
	+6 if once per year.	n/a	0.0
	Total		0.0

2. Rationale for the scoring method

Best practice satisfaction surveying is single activity focused, sent only to members who have recently received the service, can be summarized by the person that did the work (for 1-on-1 counseling, presentations and calls), tracks the purpose of a call or visit, is performed on a frequent random-sample basis and results are communicated widely. If you measure satisfaction, we assume you do a better job of managing and improving it.

Surveying immediately after the activity tends to give feedback that is heavily influenced by the member's positive or negative impression of the service agent. Surveying a day or so later captures member's feedback regarding the success of the process and whether the member accomplished what they intended to.

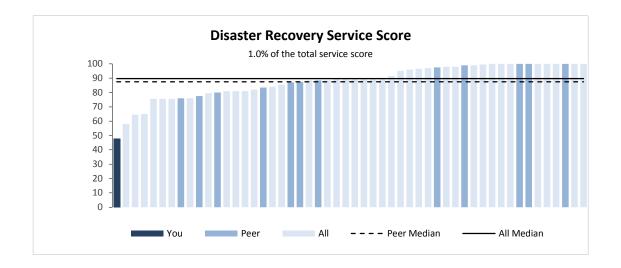
When surveying website satisfaction, it is unnecessary and irritating to sample 100% of users, particularly if they get asked to participate every time they visit the website. If the survey is a menu item that users need to find and select, you will only receive feedback from extremely motivated users. This feedback can be useful, albeit biased.

3. Survey questions used							
	Did you		If yes,	for each act	ivity survey	ed:	
	survey	Did the	What was	How often	Can you	Is the	Can you
	satisfaction	survey focus	the longest	did you	break	survey	break
	regarding	primarily on	possible	survey	down the	delayed by	down the
	this activity	this single	time in days	about the	survey	at least 1	survey
	in your most	activity? (vs	between	activity?	results by	day from	results by
	recently	including	the activity	(times per	service	the date	topic
	ended fiscal	other	and the	year)	agent?	of the	covered?
Q121	year?	activities)	survey?			session?	
Your Responses							
1-on-1 counseling	Yes	No	7	Weekly	No	Yes	No
Member presentations	Yes	No	0	Weekly	Yes	Yes	
Member telephone calls	No	n/a	n/a	n/a	n/a	n/a	n/a
Pension inceptions	No	n/a	n/a	n/a			
Written benefit estimates	No	n/a	n/a	n/a			
Website - secure member area	No	n/a	n/a	n/a			n/a
Withdrawals and Transfers-out	No	n/a	n/a	n/a			
Purchases and transfers-in	No	n/a	n/a	n/a			
Disability	No	n/a	n/a	n/a			
Peer Responses							
1-on-1 counseling	77% Yes	80% Yes	5	100% ≥ 12	80% Yes	40% Yes	20% Yes
Member presentations	100% Yes	92% Yes	1	100% ≥ 12	92% Yes	38% Yes	
Member telephone calls	54% Yes	86% Yes	55	86% ≥ 12	71% Yes	43% Yes	29% Yes
Pension inceptions	69% Yes	100% Yes	62	67% ≥ 12			
Written benefit estimates	38% Yes	100% Yes	7	100% ≥ 12			
Website - secure member area	23% Yes	67% Yes	10	100% ≥ 12			67% Yes
Withdrawals and Transfers-out	23% Yes	100% Yes	20	100% ≥ 12			
Purchases and transfers-in	38% Yes	100% Yes	15	100% ≥ 12			
Disability	54% Yes	71% Yes	64	86% ≥ 12			

You	Peer Avg
Yes	57% Yes
No	25% Yes
Yes	75% Yes
No	67% Yes
	Yes No Yes

Disaster Recovery

Your service score for disaster recovery was 48 out of 100. This was below the peer median of 88.



1. Scoring method	Your	Your
	Data	Score
+ 20 if you have back-up equipment and premises arranged.	Yes	20.0
+ 35 if you can continue paying annuities in 2 days or less, otherwise 37.5 - 2.5 X days [Subject to a minimum score of 0]	10	12.5
+ 15 if you can return to normal inception volumes in 2 days or less, otherwise 16 - days / 2 [Subject to a minimum score of 0]	20	6.0
+ 10 if you can collect data and money from employers in 2 days or less, otherwise 11 - days / 2 [Subject to a minimum score of 0]	20	1.0
+ 10 if call center at current service levels in 2 days or less, otherwise 11 - days / 2 [Subject to a minimum score of 0]	5	8.5
+ 10 if you have an independent auditor that reviews and tests the disaster re	ecovery plan No	0.0
Total score		48.0

Disaster Recovery

2. Rationale for the scoring method

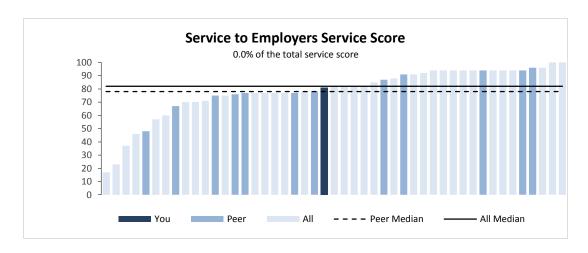
Good service includes planning and preparing for unexpected events and disasters.

3. Surve	y questions used		
	,	You	Peer Avg
Q117	Do you have back-up equipment and premises arranged for your operations if substantial damage occurs at your principal location?	Yes	100% Yes
Q118	Do you have an independent auditor that reviews and tests the disaster recovery plan?	No	54% Yes
Q119	If your principal location became inoperable due to some disaster (such as fire, tornado, etc), how long would it take, in business days, for you to:		
	a) Continue paying pension payments to retirees?	10	2 days
	b) Begin doing new pension inceptions at normal volumes?	20	6 days
	c) Collect data and money from employers?	20	5 days
	d) Respond to member calls at close to current service levels?	5	6 days

Employer Service Score

The employer service score is no longer included in the total service score. It was removed because (i) many systems could not provide the necessary data, and, (ii) employer service needs vary widely depending on the number and type of employers. CEM continues with research to provide a better, more meaningful employer service score. The employer service score had only an approximate 4.0% weight in the total service score so the impact of this change on your total service score was small.

Your service score for service to employers was 81 out of 100. This was above the peer median of 78.



1. Scoring	method	Your	Your
		Data	Score
	Communication		
+ 17	if you have an employer targeted section on your website	Yes	17.0
+ 12	if you have 3 or more different targeted types of presentations for employers, otherwise 4 X number of types	3	12.0
+ 12	if you send newsletters for employers 4 or more times per year,		
	otherwise 3 X newsletter frequency	2	6.0
	Satisfaction and service agreements		
+ 7	if you do satisfaction surveying at least once per year	n/a	0.0
+ 6	if you have service level agreements with your employers	No	0.0
	Reporting software		
+ 17	if you maintain either general or customized reporting software	Yes	17.0
+ 12	if the reporting software is web-based	Yes	12.0
+ 8	if the software integrates collections and billing	Yes	8.0
+ 9	if the software provides real time error checking and feedback	Yes	9.0
	Total score		81.0

Employer Service Score

2. Rationale for the scoring method

Having staff dedicated to servicing employers, providing generalized and/or customized collections reporting software, an up-to-date employer handbook, website, newsletter and training will help to reduce data errors and misinformation. Ultimately, this improves service to members.

3. Surve	y questions used	You	Peer Avg
Q109	Do you have an employer targeted section on your website or a separate website for		
Q103	your employers? [Do not include PDF documents.]	Yes	92% Yes
Q111	How many different types of presentations did you give to employers?	3	5
Q112	Do you have a newsletter dedicated to employers that is different from the		
	newsletter for members?	Yes	92% Yes
	a) If yes, how many times did you prepare and send an employer dedicated newsletter last year?	2	8
Q113	Do you have Service Level agreements with your employers that clarifies both your		
	and the employer's service responsibilities and includes measurement and reporting		
	vis-à-vis your responsibilities?	No	23% Yes
Q114	Do you offer and maintain generalized reporting software for your employer		
	collection points?	Yes	92% Yes
	a) Is the application web-based? [i.e., you connect to it through a web browser]	Yes	100% Yes
	b) Can the software integrate both data collection and billing?	Yes	75% Yes
	c) Can it provide real-time error checking and feedback versus data previously submitted by the employer? [For example, can it identify an unusual increase in an		
	employee's salary?]	Yes	67% Yes
	employee 3 salary:	103	0770 163
Q115	Do you maintain customized reporting software for any of your employer collection		
	points? [For example, you may maintain customized reporting software for your		
	largest employer.]	No	33% Yes
Q121	a) Did you survey satisfaction regarding this activity in your most recently ended		
	fiscal year?	No	54% Yes
	e) How often did you survey about the activity?	n/a	14% ≥ 12

What would you have to do to achieve a perfect service score?

CEM is not recommending these changes. Higher service is not necessarily optimal or cost effective. We include this complete accounting of all changes required to have a perfect service score because many participants want to know what they would have to do to achieve a higher score. Given this context, you could add as much as 37.8 points (from 62.2 to 100) to your Total Service Score if you enhanced service in each activity as follows:

	Potential
Service Activity	Improvement
1B Pension Inceptions (2.13 potential improvement to your total service score)	
• 10.0% of your service pension inceptions experienced a cashflow interruption greater than	
one month. To achieve a perfect service score 100% of your service pensions must be	
incepted without a cashflow interruption greater than one month.	+ 0.58
• 20.0% of your service pension inceptions are based on estimates which took an average of	
15 months to finalize. To achieve a perfect service score you must either incept no pensions	
based on estimates, or if you do incept pensions based on estimates do so on average in less	
than a month.	+ 0.58
 100.0% of your survivor pension inceptions experienced a cashflow interruption greater 	
than one month. To achieve a perfect service score, 100% of your survivor pensions must be	
incepted without a cashflow interruption greater than one month.	+ 0.81
 You require a birth/marriage certificate prior to incepting a pension. To achieve a perfect 	
service score you must not require birth certificates and/or marriage certificates before	
incepting a pension.	+ 0.16
1C Withdrawals and Transfers-out (0.59 potential improvement to your total service score)	
 On average, you complete withdrawals in 55 days while your mandatory wait period is 45 	
days. To achieve a perfect service score, withdrawals must be completed on the day the	
mandatory wait period ends.	+ 0.59
1D Burchases and Transfers in /2 10 notantial improvement to your total comics score)	
 1D Purchases and Transfers-in (3.10 potential improvement to your total service score) On average, you provide a service credit purchase in 180 days. To achieve a perfect service 	
	+ 3.10
score, you must be able to provide a service credit purchase estimate in 1 day or less.	+ 3.10
1E Disability (1.20 potential improvement to your total service score)	
• On average, you return a decision on a disability application in 5 months. To achieve a	
perfect service score, you must return a decision on a disability application in 1 month or	
less.	+ 1.20
2A Call Center (14.69 potential improvement to your total service score)	
 17.0% of your incoming calls resulted in undesired outcomes. To achieve a perfect service 	
score, members must experience no undesired call outcomes.	+ 2.88
 Your call center is open 42.5 hours per week. To achieve a perfect service score, your call 	
center must be open 50 or more hours a week.	+ 0.16
• On average, members calling your call center reach a knowledgeable person in 379 seconds.	
To achieve a perfect service score, members must reach a knowledgeable person on the	
phone in 20 seconds or less.	+ 3.82
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•	On average, your response time to member emails is 1.5 days. To achieve a perfect service	
	score, members' emails must be responded to in 0.5 days or less.	+ 0.17
•	You have 3 menu layers. To achieve a perfect service score you must have one or fewer menu layers.	+ 1.70
•	You are unable to provide an estimate of the member's pension at retirement on an	
	immediate real-time basis over the phone. To achieve a perfect service score, you must be	
	able to provide an estimate of the member's pension at retirement over the phone.	+ 0.67
•	You are unable to provide an estimate that is linked to the member's actual account data on	
	an immediate real-time basis over the phone. To achieve a perfect service score, you must	
	be able to provide an estimate that is linked to the member's actual account data over the	0.74
_	phone.	+ 0.74
٠	You are unable to model alternate annuity payment scenarios on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to model	
	alternate annuity payment scenarios over the phone.	+ 0.45
•	You are unable to estimate the cost to purchase service credit on an immediate real-time	1 0.43
	basis over the phone. To achieve a perfect service score, you must be able to estimate the	
	cost to purchase service credit over the phone.	+ 0.45
•	You are unable to change banking information over the phone. To achieve a perfect service	
	score, you must be able to change banking information over the phone.	+ 0.45
•	You are unable to provide the current value of the DC account on an immediate real-time	
	basis over the phone. To achieve a perfect service score, you must be able to provide the	
	current value of the DC account over the phone.	+ 0.22
•	You are unable to provide an estimate of the value of the DC account at retirement on an	
	immediate real-time basis over the phone. To achieve a perfect service score, you must be	0.45
_	able to provide an estimate of the value of the DC account at retirement over the phone.	+ 0.45
•	You are unable to switch investment options over the phone. To achieve a perfect service	+ 0.45
	score, you must be able to switch investment options over the phone. You cannot track call volume projections. To achieve a perfect service score, you must be	+ 0.45
·	able to track call volume projections.	+ 0.22
•	On average, you review your staff's responses to member calls once per month. To achieve	. 0.22
	a perfect service score you must review your staff's responses to member 4 or more times	
	per month.	+ 1.31
•	An unknown percentage of your calls are satisfied by their first contact. To achieve a perfect	
	service score, 100% of calls must be satisfied by their first contact.	+ 0.57
	1-on-1 Counseling (2.57 potential improvement to your total service score)	
•	You do not provide 1-on-1 counseling outside of normal working hours. To achieve a perfect	
	service score, 1-on-1 counseling must be available outside of normal working hours.	+ 0.19
•	8.4% of your total 1-on-1 sessions were located in the field. To achieve a perfect service	. 0.60
	score, the number of 1-on-1 sessions located in the field must be 25% or more.	+ 0.69
٠	0.0% of your 1-on-1 field sessions are held at locations separate from the employer. To achieve a perfect service score, 75% or more of your 1-on-1 field sessions must be held at	
	locations separate from employer.	+ 0.44
•	Your wait time for pre-scheduled in-house counseling sessions was 40 days. To achieve a	1 0.44
	perfect service score there must be no wait time for pre-scheduled in-house counseling	
	sessions.	+ 0.37
•	Your average wait time for walk-in counseling was 30 minutes. To achieve a perfect service	
	score there must be no wait time for walk-in counseling.	+ 0.37
•	30.0% of your walk-ins requesting a counseling session were turned away due to long wait	
	times. To achieve a perfect service score, no walk-ins requesting a counseling session can be	
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turned away because the wait was too long.	+ 0.37
 You do not regularly review counselors for coaching purposes. To achieve a perfect service 	. 0.57
score you must regularly review counselors for coaching purposes.	+ 0.15
2D Presentations and Group Counseling (1.12 potential improvement to your total service score)	
You do not offer presentations outside of normal working hours. To achieve a perfect	
service score you must offer presentations outside of normal working hours.	+ 0.33
 On average, you had 36.4 attendees per presentation. To achieve a perfect service score 	
you must average 20 attendees per presentation or fewer.	+ 0.53
You have 2 targeted types of presentations (excluding healthcare and benefit changes). To Provide a part of control of the control	
achieve a perfect service score you must have 3 or more different targeted types of presentations.	+ 0.26
presentations.	. 0.20
2E Written Pension Estimates (2.45 potential improvement to your total service score)	
 You provide estimates on average in 180 days. To achieve a perfect service score, the 	
weighted averge time required to provide written and online estimates must be same day	
or less.	+ 1.48
You do not clearly address how the pension benefit is inflation. To achieve a perfect service	. 0.25
 score you must clearly address if and how the pension benefit is inflation protected. You offer estimates through member statements and website. To achieve a perfect service 	+ 0.35
score you must offer estimates via member statement, website and call center.	
	+ 0.62
2F Mass Communication - Website (2.95 potential improvement to your total service score)	
Online salary and service credit data is not up-to-date to the most recent pay period. To	
achieve a perfect service score this data must be up-to-date to the most recent pay period.	+ 0.34
 You do not provide a complete annual history of salary and service credit data on your website. To achieve a perfect service a complete annual history of salary and service credit 	
data must be available to members.	+ 0.23
You do not offer live chat on your website. To achieve a perfect score you must offer live	0.20
chat on your website.	+ 0.23
 You do not offer a digital file which includes a history of recent correspondence and 	
member documents on your website. To achieve a perfect score you must offer a digital file	
which includes a history of recent correspondence and member documents on your	0.22
website.	+ 0.23
 You do not make all forms available online. To achieve a perfect service score all forms must be available to the member online. 	+ 0.23
 Members cannot register for 1-on-1 counseling sessions in real-time online. To achieve a 	1 0.23
perfect score members must be able to register for 1-on-1 counseling sessions in real-time	
online.	+ 0.11
 Members cannot change beneficiaries online. To achieve a perfect score members must be 	
able to change beneficiaries online.	+ 0.23
Members cannot apply for retirement online. To achieve a perfect score members must be	
able to apply for retirement online.	+ 0.34
 Pensions initiated online requiring follow-up documents or signatures to be mailed in is n/a. To achieve a perfect score pensions initiated online requiring follow-up documents must be 	
less than 50%.	+ 0.23
Members cannot check the status of their retirement application online. To achieve a	
perfect score members must be able to check the status of their retirement application	
online.	+ 0.11
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•	Members cannot apply for a transfer-out or refund online. To achieve a perfect score members must be able to apply for a transfer-out or refund online. Members cannot upload documents online in lieue of mailing hardcopies. To achieve a	+ 0.34
	perfect score members must be able to upload documents online in lieue of mailing hardcopies.	+ 0.34
<u>2F</u>	Mass Communication - Newsletters (1.28 potential improvement to your total service score)	
•	You have different newsletters for 1 segment. To achieve a perfect service score you must	
	send different newsletters to 3 or more segments.	+ 0.71
•	You do not send out personalized letters to members approaching eligibility, or becoming	
	eligible, for retirement. To achieve a perfect service score you must send out personalized	0.04
	letters to members approaching eligibility, or becoming eligible, for retirement.	+ 0.21
•	You do not send out personalized letters to members about to become vested in pension	
	benefits. To achieve a perfect service score you must send out personalized letters to members about to become vested in pension benefits.	+ 0.06
•	You do not send out personalized letters to members eligible, or likely eligible, to purchase	+ 0.00
	service credit. To achieve a perfect service score you must send out personalized letters to	
	members eligible, or likely eligible, to purchase service credit.	+ 0.06
•	You do not send out personalized letters to members with no beneficiary on file. To achieve	
	a perfect service score you must send out personalized letters to members with no	
	beneficiary on file.	+ 0.06
•	You do not send out personalized letters to members about to become vested for disability	
	benefits. To achieve a perfect service score you must send out personalized letters to	
	members about to become vested for disability benefits.	+ 0.03
•	You do not send out personalized letters to members whose disability benefits are about to	
	expire. To achieve a perfect service score you must send out personalized letters to	
	members whose disability benefits are about to expire.	+ 0.03
•	You do not send out personalized letters to members with no email address on file. To	
	achieve a perfect service score you must send out personalized letters to members with no email address on file.	+ 0.03
•	You do not send out personalized letters to members who have never visited the secure	1 0.03
	member area. To achieve a perfect service score you must send out personalized letters to	
	members who have never visited the secure member area.	+ 0.03
•	You do not solicit member feedback on your publications through focus groups or surveys.	
	To achieve a perfect service score you must solicit member feedback on your publications	
	through focus groups or surveys.	+ 0.07
	Mass Communication - Member Statements (1.04 potential improvement to your total service	score)
•	Approximately 2.0% of members complain about the accuracy of data in their member	
	statements. To achieve a perfect service score 0% of members complain about the accuracy of data in their member statements.	+ 0.24
	Your member statement data is current to 2 months. To achieve a perfect service score your	+ 0.24
	member statement data must be current to one month or less.	+ 0.09
•	You do not send member statements directly to the member's home. To achieve a perfect	. 0.03
	service score member statements must be sent directly to the member's home.	+ 0.24
•	You do not email notices to members that their member statements are available in the	
	secure member area. To achieve a perfect service score you must make member statements	
	available in the secure member area and email notices to members indicating that they are	
	available.	+ 0.24
•	Your member statements do not contain a summary of salary and service credit earned each © 2016 CEM Benchmarking Inc.	
	Service Levels - Page 7-81	

year. To achieve a perfect service score member statements must contain a summary of	
salary and service credit earned each year.	+ 0.24
Satisfaction Surveying (4.16 potential improvement to your total service score)	
a. 1-on-1 counseling (0.45 potential improvement to your total service score)	
 Your satisfaction survey for 1-on-1 counseling did not focus primarily on 1-on-1 counseling. 	
To achieve a perfect service score your satisfaction survey for 1-on-1 counseling must focus	
primarily on 1-on-1 counseling.	+ 0.27
You are unable to summarize 1-on-1 counseling satisfaction survey results by service	. 0.27
representative. To achieve a perfect service score you must be able to summarize 1-on-1	
counseling satisfaction survey results by service representative.	+ 0.09
 You are unable to summarize 1-on-1 counseling satisfaction survey results by topic covered. 	
To achieve a perfect service score you must be able to summarize 1-on-1 counseling	
satisfaction survey results by topic covered.	+ 0.09
	. 0.03
b. Member presentations (0.21 potential improvement to your total service score)	
Your satisfaction survey for member presentations did not focus primarily on member	
presentations. To achieve a perfect service score your satisfaction survey for member	
presentations must focus primarily on member presentations.	+ 0.21
c. Member telephone calls (0.67 potential improvement to your total service score)	
• You do not survey satisfaction for member telephone calls. To achieve a perfect service	
score you must do satisfaction surveying for member telephone calls where: (i) member	
telephone calls are the primary focus, (ii) the greatest length of time between the telephone	9
call and the survey is 14 days or less, (iii) surveys are continuous or occur more than 11	
times per year, (iv) you can summarize results by service representative, (v) you can	
summarize results by topic covered, and (vi) the survey is delayed at least one day from the	
call.	+ 0.67
d. Pension inceptions (0.90 potential improvement to your total service score)	
You do not survey satisfaction for pension inceptions. To achieve a perfect service score you	İ
must do satisfaction surveying for pension inceptions where: (i) inceptions are the primary	
focus, (ii) the greatest length of time between the inception and the survey is 14 days or	
less, and (iii) the surveys are continuous or occur more than 11 times per year.	+ 0.90
a. Written pension estimates (0.57 petential improvement to your total service serve)	
 e. Written pension estimates (0.57 potential improvement to your total service score) You do not survey satisfaction for pension estimates. To achieve a perfect service score you 	
must do satisfaction surveying for pension estimates where: (i) estimates are the primary	
focus, (ii) the greatest length of time between the estimate and the survey is 14 days or less	
and (iii) the surveys are continuous or occur more than 11 times per year.	, + 0.57
	. 0.57
f. Website - secure member area (0.42 potential improvement to your total service score)	
• You do not survey satisfaction for your website - secure member area. To achieve a perfect	
service score you must do satisfaction surveying for your website - secure member area	
where: (i) the website was the primary focus, (ii) the greatest length of time between the	
visit to the secure member area and the survey is 7 days or less, (iii) the surveys are	
continuous or occur more than 11 times per year, (iv) you can summarize results by area	. 0.43
visited, (v) 100% of users are not surveyed, and (vi) the survey was not a menu item.	+ 0.42
g. Withdrawals & transfers-out (0.05 potential improvement to your total service score)	
• You do not survey satisfaction for withdrawals and transfers-out. To achieve a perfect	

service score you must do satisfaction surveying for withdrawals and transfers-out where: (i)

the withdrawals and transfers-out were the primary focus, (ii) the greatest length of time between the refund, lump-sum payment or transfers-out and the survey is 14 days or less, (iii) the surveys are continuous or occur more than 11 times per year.	+ 0.05
 h. Purchases & transfers-in (0.37 potential improvement to your total service score) You do not survey satisfaction for purchases and transfers-in. To achieve a perfect service score you must do satisfaction surveying for purchases and transfers-in where: (i) the purchase or transfer-in were the primary focus, (ii) the greatest length of time between the purchases or transfer-in and the survey is 7 days or less, and (iii) the surveys are continuous or occur more than 11 times per year. 	+ 0.37
 i. Disability (0.52 potential improvement to your total service score) You do not survey satisfaction for disability. To achieve a perfect service score you must do satisfaction surveying for disability where: (i) disability was the primary focus, (ii) the greatest length of time between the disability decision and the survey is 14 days or less, and (iii) the surveys are continuous or occur more than 11 times per year. 	+ 0.52
Disaster Recovery (0.52 potential improvement to your total service score)	
 Following a disaster, you can continue to make pension payments in 10 days. To achieve a perfect service score you must be able to continue making pension payments in 2 days or less. 	+ 0.23
 Following a disaster, you can continue to make pension payments in 10 days. To achieve a perfect service score you must be able to continue making pension payments in 2 days or less. Following a disaster, you can return to normal inception volumes in 20 days. To achieve a perfect service score you must be able to return to normal inception volumes in 2 days or 	
 Following a disaster, you can continue to make pension payments in 10 days. To achieve a perfect service score you must be able to continue making pension payments in 2 days or less. Following a disaster, you can return to normal inception volumes in 20 days. To achieve a 	+ 0.23
 Following a disaster, you can continue to make pension payments in 10 days. To achieve a perfect service score you must be able to continue making pension payments in 2 days or less. Following a disaster, you can return to normal inception volumes in 20 days. To achieve a perfect service score you must be able to return to normal inception volumes in 2 days or less. Following a disaster, you can collect data and money from employers in 20 days. To achieve a perfect service score you must be able to collect data and money from employers in 2 days or less. Following a disaster, your call center can return to normal service levels in 5 days. To 	
 Following a disaster, you can continue to make pension payments in 10 days. To achieve a perfect service score you must be able to continue making pension payments in 2 days or less. Following a disaster, you can return to normal inception volumes in 20 days. To achieve a perfect service score you must be able to return to normal inception volumes in 2 days or less. Following a disaster, you can collect data and money from employers in 20 days. To achieve a perfect service score you must be able to collect data and money from employers in 2 days or less. 	+ 0.09

disaster recovery plan.

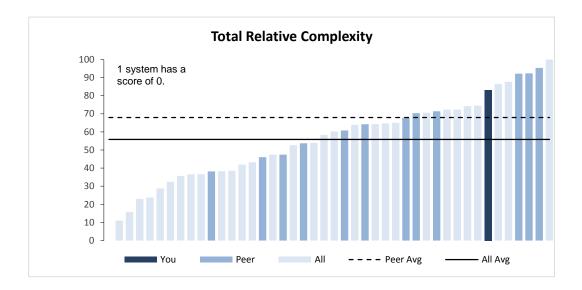
+ 0.10

Plan Complexity

This section:

- Identifies causes of retirement system complexity
- Compares your system's complexity to your peers and other retirement systems

Your relative complexity score was above the peer average.



Your total relative complexity equals the scaled weighted average of your complexity by cause. The causes of complexity, are summarized on the following page.

Use Caution When Interpreting Your Results

The complexity scores are relative measures. Relative measures rank all participants from relatively least to relatively most complex on a scale of 0 to 100. A low relative complexity score does not mean that your system is not complex, rather it means that your system is relatively less complex than your peers. All retirement systems are very complex, so even a system that has a 0 total relative complexity score is still very complex.

Scaling Methodology

Scaling your responses from 0 (least complex) to 100 (most complex) is done extensively throughout this section. The benefit of scaling is that all results and responses are converted to, and compared on, the same scale. This is true whether the responses range from 3 to 800 or from 1 to 3. The lowest response is always converted to 0 and the highest response is always converted to 100.

Your scaled score =

100 x (your response - minimum response) / (maximum response - minimum response)

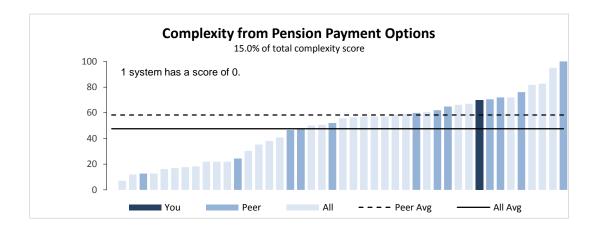
Often, complexity relationships are not linear. For example, the difference in complexity between a system with 1 retirement formula for all members versus a system with 10 different retirement formulas is much greater than the difference in complexity between a system with 10 retirement formulas and a system with 20 retirement formulas. Each additional retirement formula causes increasingly smaller increments in complexity. These diminishing increments in complexity are reflected mathematically by raising the responses to the power of 0.3 prior to using the scaling formula.

Complexity scores by cause

Your total relative complexity equals the scaled weighted average of your complexity by cause. Your relative complexity by cause is summarized in the table below. The remainder of this section shows how the scores were calculated.

	Complexity Scores by Cause							
			<u>Rel</u>	ative Comple	exity			
			<u>(0 </u>	least - 100 m	ost)			
Cau	ise	Weight	You	Peer Avg	All Avg			
Α	Pension Payment Options	15.0%	70	58	48			
В	Customization Choices	20.0%	64	24	21			
С	Multiple Plan Types and Overlays	10.0%	63	43	32			
D	Multiple Benefit Formula	16.0%	37	37	34			
E	External Reciprocity	3.0%	35	31	23			
F	COLA Rules	4.0%	26	31	31			
G	Contribution Rates	3.0%	49	57	49			
Н	Variable Compensation	4.0%	100	92	77			
1	Service Credit Rules	3.0%	15	56	50			
J	Divorce Rules	3.0%	55	62	66			
K	Purchase Rules	5.5%	78	69	59			
L	Refund Rules	4.0%	28	55	42			
М	Disability Rules	6.0%	83	78	57			
N	Translation	0.5%	100	14	29			
0	Defined Contribution Plan Rules	3.0%	0	38	36			
We	ighted Average (before scaling)	100.0%	56	47	40			
Sca	led Total Complexity - Average		83	68	56			
Sca	led Total Complexity - Median		83	68	59			

A. Pension Payment Options Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	Q139 Do you have a designer option where members can design virtually any actuarially sound cash flow they choose? [Designer options need to be custom priced by an actuary.] Complexity: 100 if yes, otherwise 0.	No 0	15% Yes 15	9% Yes 9
(Q134 Do you offer "joint and survivor" options that are: a) Reduced to Beneficiary Only? [For example, If the beneficiary dies first, then the retiree's pension continues at the same level. However if the retiree dies first then the beneficiary receives a reduced pension			
	(such as 70% for spouse).] b) Reduced to Last Survivor? [For example, if either the retiree or beneficiary dies the survivor receives a reduced pension (such as 70%,	Yes	77% Yes	77% Yes
	etc.).] c) "Reversion" or "Pop-up"? [For example, if the beneficiary dies first, the retiree's pension increases to an unmodified level. However, if the retiree dies first the pension does not increase for the surviving	No	23% Yes	27% Yes
30%	beneficiary (and it may decrease).] Complexity: 100 if all 3 types (yes to a, b and c), 85 if both reduced to spouse and reduced to last (yes to a and b), 75 if reversion and either reduced to spouse or reduced to last (yes to c and either a or b),	Yes	85% Yes	55% Yes
	otherwise 0.	75	56	45
(Q135 How many Joint and Beneficiary or Survivor percentages (i.e., 100% Survivor, 50% Survivor, etc.) do you permit? [If you permit any %			
10%	selected by the member, then indicate "unlimited".] Complexity: 100 if unlimited, otherwise maximum of 100 and 10 X	6	8	7
_3,0	number of percentages.	60	82	53

A. Pension Payment Options Complexity

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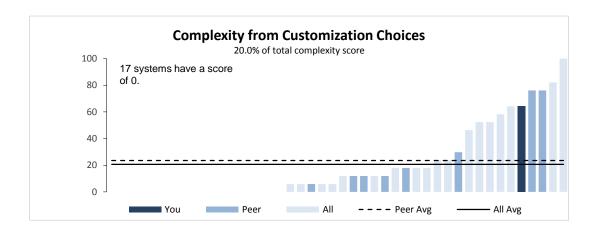
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
100/	Q144 How many mortality tables do you keep track of for determining joint and survivor or beneficiary options?	3	3	8
10%	Complexity: Scaled measure where the system that tracks the most mortality tables gets 100 and the least 0.	10	8	8
	Q136 Do any of your retirement formula for members explicitly subtract			
	estimated Social Security (or CPP in Canada) when determining the benefit?	Yes	46% Yes	52% Yes
	a) If yes, is this true for all of your members or are some pensions reduced to reflect Social Security and others not?	Some	0% Yes	39% Yes
	b) If yes, do you have a "Level Income" option for early retirees that pays a higher benefit to members prior to age 65 and then reduces the	Some	0% res	39% 165
	benefit at age 65 when social security (or CPP in Canada) starts to be	.,	000/14	040/3/
10%	paid? Complexity: 50 if you adjust for social security + 25 if you adjust for	Yes	83% Yes	91% Yes
	some members but not all + 25 if you have a level income for early retirees.	100	44	46
	Q137 Do you have "High/ Low" or "Low/High" options that are not tied to social security? [For example, a retiree might want higher payments for 10 years until a mortgage obligation is repaid, followed by lower			
5%	payments.] Complexity: 100 if yes, otherwise 0.	No 0	0% Yes 0	5% Yes 5
370	Complexity. 100 if yes, otherwise 0.	U	U	3
	Q138 Do you offer "Annuity Certain" options? [For example, Annuity Certain options provide the annuitant with a monthly benefit for life. If the annuitant dies before a set guarantee period, monthly benefits continue			
	to be paid to a beneficiary for the balance of the guarantee period.]	Yes	62% Yes	57% Yes
5%	Complexity: 100 if yes, otherwise 0.	100	62	57
	Q140 Can a member choose between a COLA protected and a non-COLA pension? [The only example we have seen provides a much higher FAS			
	salary base for the non-COLA pension.]	No	15% Yes	5% Yes
5%	Complexity: 100 if yes, otherwise 0.	0	15	5

A. Pension Payment Options Complexity

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Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q14	1 Do you have a Deferred Retirement Option Plan ("DROP")? [This option allows eligible employees to receive payment of retirement benefits while continuing to work. These payments are usually deposited into a separate account, and the total accumulated value of this account is			
,	paid via lump sum to the employee on actual retirement.]	No	8% Yes	20% Yes
5%	Complexity: 100 if yes, otherwise 0.	0	8	20
Q14	2 At retirement, can a member convert: a) Part of his benefit into a partial lump sum payment?	No	62% Yes	39% Yes
	b) All of his benefit into a lump sum or commuted value payment? [That			
	can be rolled over to another fund, or investment account, etc.]	Yes	15% Yes	20% Yes
5%	Complexity: 100 if yes to a or b, 0 if no.	100	69	55
Q14	3 Are members permitted to retire mid-month (in which case they receive a partial pension payment for the remainder of the month) or are they always assumed to retire on a set day (usually the first or the last day) of			
	the month?	Set Day	38% Any	34% Anv
5%	Complexity: 100 if any day, otherwise 0.	0	38	34
100%	Weighted Average	49	41	34
	Scaled Complexity Score for Pension Payment Options	70	58	48

B. Customization Choices Complexity



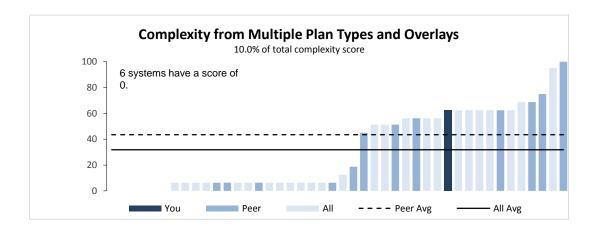
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q1	75 Can either existing employers, or a new employer joining your system, choose:			
	a) Whether they offer early retirement, or a window of early			
	retirement?	No	31% Yes	20% Yes
	b) Whether or not part-time employees are eligible?	No	8% Yes	9% Yes
	c) Whether employee contributions are paid pre or post tax?	No	23% Yes	16% Yes
	d) Whether they pay for employee contributions themselves, or not? e) Position coverage based on predetermined rule sets? [For example, employers can choose from a list of pre-determined rules sets such as 1.5% X FAS for General and 2.5% X FAS for Law Enforcement. Employers	No	54% Yes	27% Yes
	may have flexibility to determine eligibility for each group.] f) Contribution levels and/ or match rates? [For example, at Texas MRS, employers can choose employee deposit rates of 5%, 6% or 7% and employer match rates of 1 to 1, 1.5 to 1 or 2 to 1. We think this only applies to money match and DC plans because for DB plans the	No	0% Yes	9% Yes
	promised benefit determines the contribution.] g) To pay for one-time improvements in retiree or member benefits? [For example, one fund's employers can elect to pay to improve the	No	15% Yes	7% Yes
	money purchase entitlement of their members.]	Yes	17% Yes	14% Yes

B. Customization Choices Complexity

page 2 of 2

Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
0.	176 When new employers join your system, do they have the flexibility to			
Q.	customize any of the following items: If yes, indicate the number of			
	standard choices for that item.			
	a) Benefit program multipliers? [i.e., 2% per year of service, 2.5% per			
		n /n	n /n	n /n
	year of service, etc.]	n/a	n/a	n/a
	b) Final salary definition? [i.e., Sick Leave in or out, Final 1 year, Highest	,		
	5 consecutive years, etc]	n/a	2	2
	c) Retirement eligibility rules? [i.e., age and/or years of service required	_		
	to retire]	n/a	n/a	3
	d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI uncapped,			
	etc]	n/a	2	2
	e) Vesting period?	n/a	n/a	n/a
	f) Service credit purchase categories?	n/a	2	3
	g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000			
	and \$10,000]	n/a	n/a	n/a
	h) Disability coverage rules?	n/a	n/a	2
	i) Choice as to whether and how contributions and benefits are			
	coordinated with social security?	n/a	1	1
	j) Other (describe)?	2	2	2
	Total Customization Choices [Sum of 1 for each yes in Q175 + sum of #			
	of choices in Q176]	3	2	2
90%	Complexity: Scaled measure where the system with the most	_		
50,0	customization choices receives 100 and the least 0.	4	3	2
Q:	177 Can an existing employer change any of the choices (per question 176			
	above), effectively creating a new or altered rule set, at any time?	Yes	25% Yes	23% Yes
10%	Complexity: 100 if yes, otherwise 0.	100	23	23
100%	Weighted Average	14	5	4
	Scaled Complexity Score for Customization Choices	64	24	21

C. Multiple Plan Types and Overlays Complexity



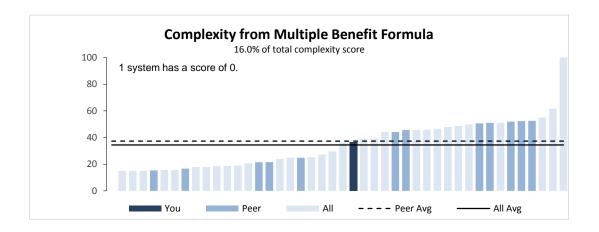
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q124 Which of the following descriptions best describes the non-optional			
	benefit plans that you administer for each of your member groups:			
	a) Traditional Defined Benefit ("DB")?	Yes	92% Yes	88% Yes
	b) DB Cash Balance (aka Money Purchase)?	Yes	25% Yes	8% Yes
	c) Hybrid DB/ DC Cash Balance?	Yes	8% Yes	4% Yes
	d) Hybrid DB/ Money Match?	No	8% Yes	2% Yes
	e) DROP savings?	No	8% Yes	9% Yes
	f) Defined Contribution ("DC")?	No	25% Yes	14% Yes
	g) Hybrid DB/ DC?	No	33% Yes	27% Yes
	h) Other (describe)?	<u>No</u>	<u>0% Yes</u>	<u>10% Yes</u>
	Total number of different plan types. Hybrid plans count as 2 types.	4.0	2.4	2.1
45%	Complexity: 100 if 3 or more different plan types, 80 if 2, 0 if 1.	100	58	43
45%	Total number of different plan types. Hybrid plans count as 2 types.	4.0	2.4	

C. Multiple Plan Types and Overlays Complexity

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Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q	125 Do members in any of your defined benefit plan(s) have the option of electing: [These questions are not applicable for DC plans or the DC portion of hybrid DB/DC plans]			
	a) A 'variable investment option' that can increase or decrease the value			
	of a member's future DB pension depending on the investment performance of a 'variable fund'?	No	8% Yes	5% Yes
30%	Complexity: 100 if yes, otherwise 0.	0	8	5
	b) A 'pension savings overlay'? [Some Dutch systems have this option.			
	The additional contributions are converted into an annuity at			
	retirement. Interest is based on a fixed percentage or on the			
	performance of the pension fund.]	No	15% Yes	9% Yes
10%	Complexity: 100 if yes, otherwise 0.	0	15	9
	c) To change their contribution rate in order to get either more money			
	at retirement or earlier eligibility to retire?	No	8% Yes	5% Yes
10%	Complexity: 100 if yes, otherwise 0.	0	8	5
Q	126 Do you have a Highly Compensated Employee replacement benefit			
	program for employees that exceed legal or contractual limits of			
	maximum pensionable earnings?	Yes	77% Yes	66% Yes
5%	Complexity: 100 if yes, otherwise 0.	100	77	66
100%	Weighted Average	50	35	25
	Scaled Complexity Score for Multiple Plan Types and Overlays	63	43	32

D. Multiple Benefit Formula Complexity



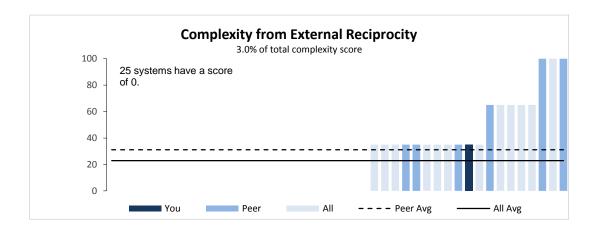
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Qí	.48 How many different rule sets do you have that apply to member groups or subsets of a member group for qualifying for an unreduced			
	retirement formula?	18	8	9
30%	Complexity: Scaled measure where the system with the most rule sets			
	gets 100 and the least 0.	19	8	9
Qí	149 Can members retire earlier than the age required for an unreduced			
	retirement formula?	Yes	100% Yes	98% Yes
5%	Complexity: 100 if yes, 0 if no	100	100	98
Q1	L50 How many different salary definitions could apply in retirement formula			
	calculations?	5	5	4
20%	Complexity: Scaled measure where the system with the most salary			
	definitions receives 100 and the least 0.	72	67	61
Q1	L51 How many different 'formula percentage' rule sets could apply in			
	unreduced retirement formulas?	16	6	7
25%	Complexity: Scaled measure where the system with the most rule sets			
	gets 100 and the least 0.	35	15	14

D. Multiple Benefit Formula Complexity

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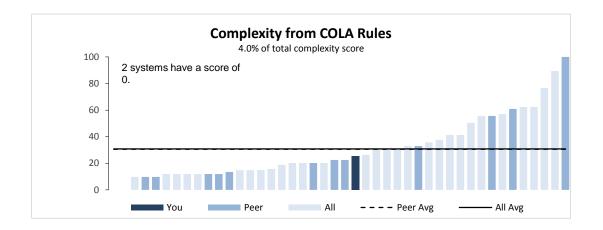
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
C	2152 Do you have different employers with different benefit formula? If yes, which of the following happens when a member moves from one employer that you administer to another with a different benefit formula? [For example, moves from PERS to Law Enforcement.]	No	54% Yes	50% Yes
	a) Each system uses its own formula and salary data to determine the benefit.	n/a	29% Yes	59% Yes
	b) Each system applies its own formula but uses either the salary earned			
	in the last system, or the highest salary (or salaries) in either system.	n/a	71% Yes	36% Yes
	c) The highest formula will apply.	n/a	0% Yes	9% Yes
	d) The formula of the plan where the member works last will apply.	n/a	29% Yes	36% Yes
	e) Other (describe).	n/a	29% Yes	23% Yes
20%	Complexity: 100 if b or c apply, 80 if d or e, 60 if a, otherwise 0.	0	51	43
100%	Weighted Average	34	35	32
	Scaled Complexity Score for Multiple Benefit Formula	37	37	34

E. External Reciprocity Complexity



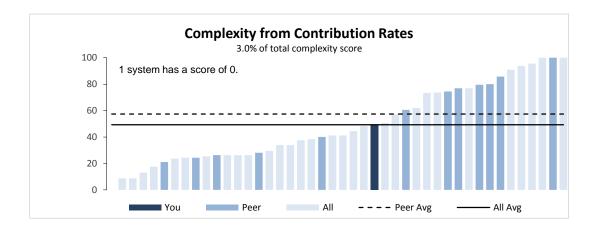
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
35%	Q153 Do you have agreements with external systems where you both agree to use the member's final salary from the system where the member worked immediately prior to retirement in the benefit calculation? [Otherwise, each system pays the "dual" member a pension benefit based on its own rules for determining the benefit. Neither credit nor money are transferred between systems.] Complexity: 100 if yes, otherwise 0.	Yes 100	46% Yes 46	32% Yes 32
3370	Complexity. 100 ij yes, otherwise o.	100	40	32
	Q154 Do you have agreements with external Systems where the member may			
	combine internal and external credit to form one joint account?	No	23% Yes	18% Yes
65%	Complexity: 100 if yes, otherwise 0.	0	23	18
100%	Weighted Average	35	31	23
	Scaled Complexity Score for External Reciprocity	35	31	23

F. COLA Rules Complexity



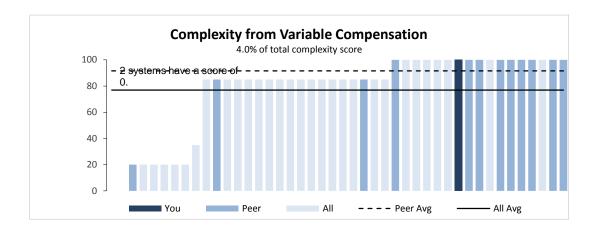
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q1	.45 How many different cost of living adjustment ("COLA") rule sets do you have for retired, and if applicable, inactive members? (These rule sets			
	may be either contractual or legislated.)	1	3	3
20%	Complexity: Scaled measure where the system with the most rule sets			
	receives 100 and least receives 0.	46	59	56
Q1	.46 Do you have:			
	a) Cost of living adjustment ("COLA") clauses that carry forward inflation			
	that exceeds a cap (versus no cap or no carry forward or no COLA etc.)?	No	23% Yes	20% Yes
40%	Complexity: 100 if yes, otherwise 0.	0	23	20
	b) Conditional COLA based on the level of funding?	Yes	38% Yes	36% Yes
10%	Complexity: 100 if yes, otherwise 0.	100	38	36
	c) Umbrella legislation that guarantees the purchasing power of an			
	annuitants' pension will not fall below a certain level? [An example of			
	such legislated protection is the PPPA in California.]	No	15% Yes	16% Yes
20%	Complexity: 100 if yes, otherwise 0.	0	15	16
Q1	.47 Do you have COLA clauses that increase the base pensionable earnings			
	of inactive members?	Yes	15% Yes	37% Yes
5%	Complexity: 100 if yes, otherwise 0.	100	15	36
	a) If yes, are these COLA increases the same as they are for annuitants?	No	50% Yes	69% Yes
5%	Complexity: 100 if yes, otherwise 0.	0	8	25
100%	Weighted Average	24	29	29
	Scaled Complexity Score for COLA Rules	26	31	31

G. Contribution Rates Complexity



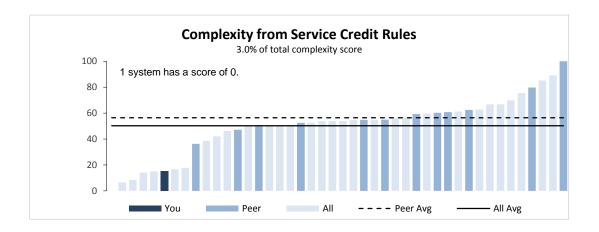
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q178 How many different contribution percentages do you collect from: a) Employers? [For example, single member group systems may have			
	only one contribution percentage whereas some multi-plan systems may collect numerous different contribution rates from various participating employers.]	5	311	141
40%	Complexity: 100 if 10 or more, otherwise 10 X number of contribution percentages subject to a maximum of 100.	50	62	54
	b) Members?	4	21	11
40%	Complexity: 100 if 10 or more, otherwise 10 X number of contribution percentages subject to a maximum of 100.	40	41	41
	Q179 Which of the following payment methods for employee contributions occur in the plans that you administer:			
	a) No employee contributions?	Yes	54% Yes	30% Yes
	b) Employer pays his part and also the employee contributions?	No	62% Yes	45% Yes
	c) Employer withholds employee contributions pre-tax from his salary?	Yes	92% Yes	98% Yes
17%	d) Employer withholds employee contributions post-tax from his salary? Complexity: 100 if all 4 methods are possible, 66 if 3 methods, 33 if 2	No	62% Yes	32% Yes
	methods, 0 if 1 method.	33	56	35
	Q180 Do you have any other contributions in addition to the regular employee and employer contributions? [For example, Ohio SERS collects a surcharge for members who earn less than a minimum compensation			
	amount.]	Yes	54% Yes	43% Yes
3%	Complexity: 100 if yes, otherwise 0.	100	54	43
100%	Weighted Average	45	52	45
	Scaled Complexity Score for Contribution Rates	49	57	49

H. Variable Compensation Complexity



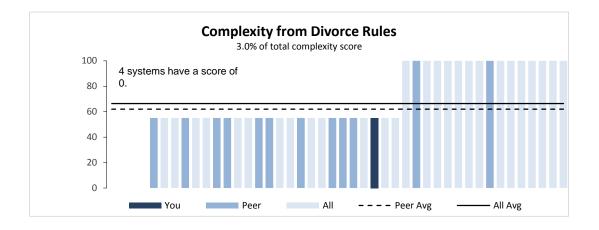
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Ω1	173 Indicate which of the following forms of variable compensation are paid			
Q1	in your system. And, if paid, indicate whether all, some or none of that			
	type of variable compensation is included in pensionable earnings.			
	a) Bonuses?	Yes	92% Yes	89% Yes
	b) Allowances, such as remote location pay or 'high risk' duty allowance			
	or a car allowance?	Yes	77% Yes	84% Yes
	c) Overtime pay?	Yes	92% Yes	84% Yes
	d) Commissions or similar payments such as fees paid to sheriffs for			
	process serving?	Yes	54% Yes	41% Yes
20%	Complexity: 100 if variable compensation is paid in your system,			
	otherwise 0.	100	100	95
	If yes, is all, some or none of it included in pensionable earnings?			
	a) Bonuses?	Some	18% All	16% All
	b) Allowances, such as remote location pay or 'high risk' duty allowance			
	or a car allowance?	Some	21% All	17% All
	c) Overtime pay?	Some	75% All	57% All
	d) Commissions or similar payments such as fees paid to sheriffs for			
	process serving?	None	29% All	39% All
65%	Complexity: 100 if some types of variable compensation paid are			
	included and some are not (i.e., either any of the above is 'some' or			
	there is a mix of 'all' and 'none'), otherwise 0.	100	92	80
Q1	174 When determining a member's pensionable earnings does a cap on			
	salary increases apply?	Yes	77% Yes	41% Yes
15%	Complexity: 100 if yes, 0 if no	100	77	41
100%	Weighted Average	100	92	77
	Scaled Complexity Score for Variable Compensation	100	92	77

I. Service Credit Rules Complexity



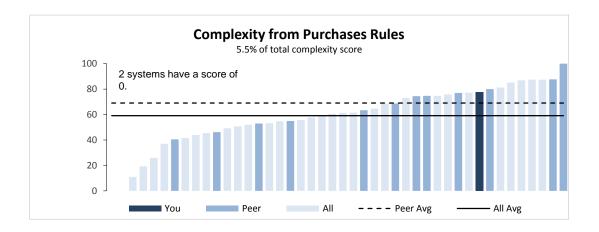
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
C	155 How many different definitions do you have for a "full year" of service			
	credit?	4	11	6
30%	Complexity: Scaled measure where the system with the most different			
	definitions receives 100 and least receives 0.	14	18	11
C	156 Does your system have more than one payroll year for determining			
	service credit?	No	23% Yes	25% Yes
30%	a) If yes, how many different payroll years exist in your system? Complexity: Scaled measure where the system with the most different	n/a	13	6
3070	payroll years receives 100 and least receives 0.	0	12	8
C	157 How many different vesting periods do you have that apply to active			
	members? [Your answer should be 0 if you have immediate vesting.			
	Most North American systems have only one.]	2	2	2
5%	Complexity: Scaled measure where the system with the most different			
	vesting periods receives 100 and least receives 0.	66	59	52
C	158 b) Casual/ temporary/ intermittent/ seasonal employees to be			
	members? [An example of a 'temporary" employee is an infrequent			
	substitute teacher.]	No	77% Yes	75% Yes
30%	Complexity: 100 if yes, otherwise 0.	0	77	75
C	159 Are you sometimes asked by employers to determine the eligibility of			
	members?	Yes	85% Yes	86% Yes
5%	Complexity: 100 if yes, otherwise 0.	100	85	86
100%	Weighted Average	13	39	35
	Scaled Complexity Score for Service Credit Rules	15	56	50

J. Divorce Rules Complexity



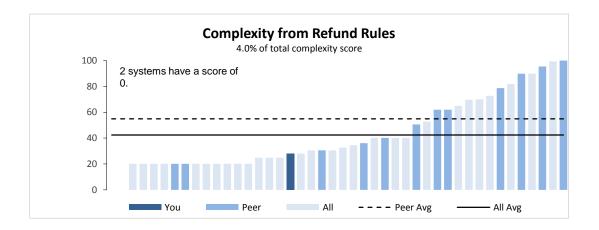
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q	186 Choose the statement that best describes how divorce settlements for			
	active members (or divorce decrees or QDROS, or QILDROS, or Division			
	of Benefit Orders, etc.) impact your system. If you have different rules			
	for different plans, choose the statement that applies to the largest number of cases.			
	a) Minimal impact. Law prevents you from paying the pension to			
	anybody except the member and the member's specified beneficiaries.	No	0% Yes	14% Yes
	b) Minimal impact unless children are involved. With children you may			
	be required to redirect payment.	No	0% Yes	0% Yes
	c) A portion of the pension is paid to the ex-spouse, but ONLY when the			
	member begins receiving benefits.	Yes	85% Yes	47% Yes
	d) A portion of the pension is paid to the ex-spouse. The ex-spouse can			
	initiate the pension at a time different than the member provided that			
	eligibility conditions are met.	No	15% Yes	36% Yes
	e) Other (describe)	No	8% Yes	12% Yes
100%	Complexity: 100 if yes to d, 55 if yes to c or e, 5 if yes to b, otherwise 0.	55	62	66
100%	Weighted Average	55	62	66
	Scaled Complexity Score for Divorce Rules	55	62	66

K. Purchase Rules Complexity



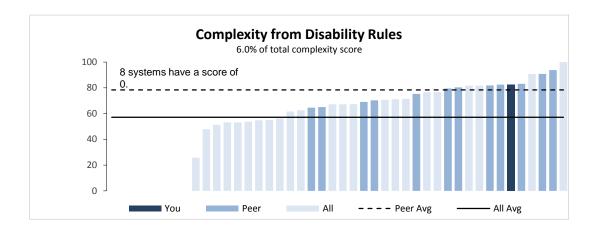
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q:	160 Indicate each of the payment methods you permit for service credit purchases and upgrades:			
	a) Rollover from tax qualified plans such as 401(a) or 401(k) or Conduit			
	IRA or KEOGH in the US; or RRSP plans in Canada?	Yes	100% Yes	98% Yes
	b) Lump sum payments from members?	Yes	100% Yes	87% Yes
	c) Installment payments direct from members?	No	42% Yes	61% Yes
25%	d) Installment payments via payroll deduction through employers? Complexity: 10 if rollover + 10 if lump sum direct from member + 40 if	Yes	62% Yes	53% Yes
	installment direct from member + 40 if installment through payroll deduction.	60	60	67
Q: 25%	161 How many different service credit purchase categories do you have with different definitions and/or eligibility requirements? Complexity: 7 X the number of categories (subject to a maximum of	34	16	12
2370	100).	100	85	66
Q:	162 How many different service credit purchase calculation formula or	8	6	6
25%	methodologies do you have? Complexity: 15 X the number of formula (subject to a maximum of 100).	8 100	6 81	6 70
Q:	163 Are your service credit purchase rules (category definitions, eligibility requirements and calculation methodologies):			
	a) Essentially identical for all your members?	No	31% Yes	44% Yes
	b) Similar for all member groups, albeit with some differences?	Yes	38% Yes	45% Yes
	c) Very different for different member groups?	No	31% Yes	15% Yes
25%	Complexity: 100 if very different for all member groups, 50 if some			
	differences between member groups, otherwise 0.	50	50	34
100%	Weighted Average	78	69	59
	Scaled Complexity Score for Purchase Rules	78	69	59

L. Refund Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q164 Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	Yes	77% Yes	59% Yes
67%	a) If yes, how many different one-time death payment rule sets do you have? [i.e., \$5,000, \$2,000 etc.] Complexity: Scaled measure where the system with the most different	1	4	3
0770	rule sets gets 100 and the system with the least gets 0.	0	38	25
33%	Q165 How many different refund formulas do you have? Complexity: Scaled measure where the system with the most different	3	3	3
3370	refund formulas gets 100 and the system with the least gets 0.	75	69	62
100%	Weighted Average	25	49	38
	Scaled Complexity Score for Refund Rules	28	55	42

M. Disability Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q2:	O Do you administer:			
	a) Long-term disability/ disability pensions?	Yes	100% Yes	82% Yes
20%	Complexity: 100 if you administer, otherwise 0.	100	100	82
Q1	71 How many different rule sets with different definitions or benefits do			
	you have that apply to member groups or subsets of a member group for:			
	a) Long-term disability/ disability pensions?	12	4	6
10%	The Complexity measure scales the responses so that the system with			
	the most rule sets equals 100 and the least equals 0.	52	33	27
Q2:	Do you administer:			
	b) Short-term disability?	No	15% Yes	11% Yes
Q1	71 How many different rule sets with different definitions or benefits do			
	you have that apply to member groups or subsets of a member group for:			
	b) Short-term disability (if you administer it yourself)?	n/a	2	3
5%	The Complexity measure scales the responses so that the system with			
	the most rule sets equals 100 and the least equals 0.	0	7	6
Q3	1 Do you cover non-occupational disability? [Some systems only cover			
	disabilities that happen at work.]	Yes	100% Yes	100% Yes
	a) If yes, does either the amount paid or the taxation of the disability			
	benefit vary depending on whether the disability is occupational versus	Voc	62% Yes	470/ Vas
10%	non-occupational? Complexity: 100 if you have to determine whether or not the disability	Yes	62% Yes	47% YES
_3,0	occurred at work and you have an independent decision process,			
	otherwise 0.	100	62	39

M. Disability Rules Complexity

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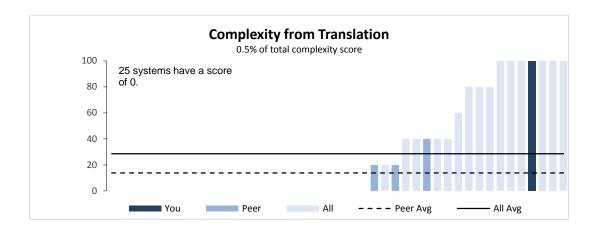
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q133 b) Check income of disabled members after they have started receiving disability payments?	Yes	92% Yes	62% Yes
10%	Complexity: 100 if yes, otherwise 0.	100	92	52
	Q167 Will you pay a disabled member that returns to work at a salary lower than he previously earned:			
	a) The difference between his old salary (or his old disability benefit) and his new lower salary?b) An amount that is potentially greater than the difference between his	No	31% Yes	14% Yes
	old salary and his new lower salary?	No	8% Yes	6% Yes
10%	Complexity: 100 if yes to b, 80 if yes to a, otherwise 0.	0	32	12
1	Q168 How do you determine whether a member qualifies for long-term disability/ disability pension:			
	c) Process independent of social security, worker's compensation and			
	employer decisions? [For example, many systems use independent			
	internal processes or medical review boards or medical consultants.]	Yes	100% Yes	95% Yes
15%	Complexity: 100 if yes, otherwise 0.	100	100	80
1	Q169 Which of the following descriptions best describes the MINIMUM level			
	of disability necessary to be eligible for a long-term disability/ disability			
	pension: [If you have different plans with different definitions, choose the definition that applies to the largest number of cases.]			
	a) Disabling injury or illness that prevents you from performing your			
	current job duties (even though you might be able to perform other			
	jobs) and expected to be permanent (or for some systems - persist			
	longer than 6 or 12 months)?	Yes	77% Yes	57% Yes
	b) Disabling injury or illness that prevents the member from performing			
	current and 'other' jobs that he/she is qualified for and/or can become			
	qualified to do in a reasonable period of time and expected to be			
	permanent (or for some systems - persist longer than 6 or 12 months)? [Sometimes but not always the 'other job' is defined as not able to earn			
	a certain level (i.e., 75%) of pre-disability earnings.]	n/a	8% Yes	17% Yes
	c) Totally and permanently incapacitated and member is not reasonably	.,, α	070 1 03	1770 1 63
	expected to recover from disabling medical condition or not expected to			
	ever work again?	n/a	17% Yes	29% Yes
	d) Other (describe)?	n/a	25% Yes	11% Yes
10%	Complexity: If your decision process is independent (i.e., yes to c), then			
	100 if yes to b, 90 if yes to a, 50 if yes to c, 25 if yes to d, otherwise 0.	90	83	64

M. Disability Rules Complexity

page 3 of 3

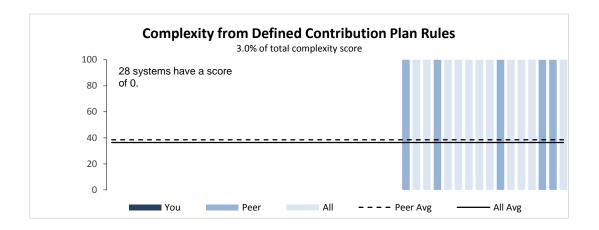
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
0′	170 If you administer short-term disability:			
Q.	a) Are the short-term and long-term disability/ disability pension			
	processes closely entwined? [i.e., difficult to distinguish between costs			
	of long-term/disability pensions and short term disability, same staff do			
	both, similar approval processes]	n/a	100% Yes	63% Yes
	b) Are the disability definitions, other than the expected duration of	π, α	10070 103	0370 163
	disability, the same for both long-term and short-term disability? [For			
	example, the only difference between the definition of long-term/			
	disability pensions and short-term disability at some systems is the			
	disabling injury or illness is expected to last longer than 12 months for			
	long-term.]	n/a	50% Yes	25% Yes
	c) Are there materially different approval processes for short-term and	•		
	long-term disability/ disability pensions?	n/a	50% Yes	38% Yes
5%	Complexity: 100 if different definitions and approval processes (i.e., no			
	to b and yes to c), 75 if approval processes or definitions are very			
	different (either no to b or yes to c), otherwise 0.	0	8	9
Qí	172 Do you reduce payments if the member qualifies or receives:			
	a) Disability social security?	Yes	38% Yes	25% Yes
	b) Worker's compensation?	Yes	62% Yes	47% Yes
	c) Other public funds (i.e., federal military disability)?	No	15% Yes	6% Yes
	d) Income protection plans/other disability insurance?	No	15% Yes	8% Yes
	e) Employer sick leave and annual leave pay?	No	23% Yes	14% Yes
	f) Unemployment compensation?	No	31% Yes	17% Yes
	g) Income from other employment?	No	54% Yes	39% Yes
	h) Other (describe)?	<u>No</u>	<u>15% Yes</u>	22% Yes
	Total yes responses for disability coordination	2	3	n/a
5%	The Complexity measure scales the responses so that the system with			
	the most yes responses equals 100 and the least equals 0.	61	55	34
100%	Weighted Average	72	69	50
	Scaled Complexity Score for Disability Rules	83	78	57

N. Translation Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q89	, , , , , , , , , , , , , , , , , , , ,			
	English (or other than French in Quebec and France), or in Braille:			
	a) Member statements?	Yes	8% Yes	23% Yes
	b) Annual report?	Yes	8% Yes	31% Yes
	c) Newsletters?	Yes	8% Yes	23% Yes
	d) Website?	Yes	31% Yes	37% Yes
	e) Brochures and pamphlets?	Yes	15% Yes	40% Yes
100%	Complexity: 100 if you translate all 5 of the above materials, 80 if 4, 60			
	if 3, 40 if 2, 20 if 1, otherwise 0.	100	14	29
100%	Weighted Average	100	14	29
	Scaled Complexity Score for Translation	100	14	29

O. Defined Contribution Plan Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q124 Which of the following descriptions best describes the non-optional benefit plans that you administer for each of your member groups: f) Defined Contribution ("DC")? g) Hybrid DB/ DC?	No No	25% Yes 33% Yes	14% Yes 27% Yes
100%	Complexity: 100 if yes to f or g, otherwise 0.	0	38	36
100%	Weighted Average	0	38	36
	Scaled Complexity Score for Defined Contribution Plan Rules	0	38	36

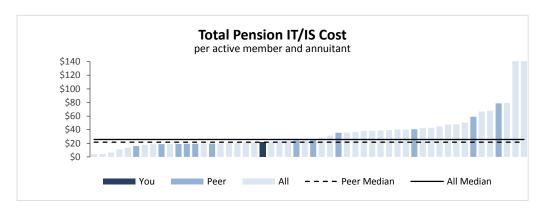
IT and Major Projects

This section contains comparisons to your peers and all participants of:

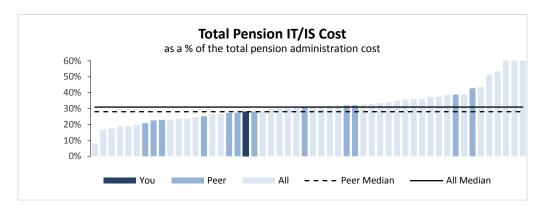
- Total IT/IS costs
- Indicators of CRM (Customer Relationship Management) capability
- Attributions of IT/IS and Major Projects to the other administration activities

IT/IS costs

Your IT/IS cost was \$21.71 per active member and annuitant. This was equal to the peer median.



Your IT/IS cost as a percent of total pension administration cost was 28%. This was equal to the peer median.

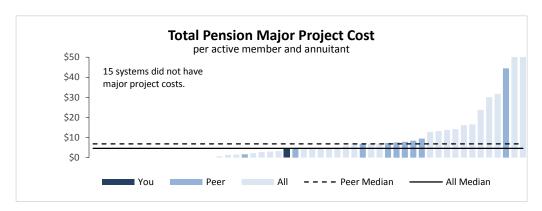


IT/IS Cost by Category										
	Cost	Cost per Active Member and Annuitant					Cost as a % of Total			
	<u>in\$000</u>						<u>r</u>	IT/IS Cost		
			Peer	Peer	All			Peer		
Activity	You	You	Median	Avg	Median	All Avg	You	Avg	All Avg	
5c. Amortization of IT Major Projects	1,073	4.26	0.87	2.05	0.00	7.48	13%	6%	18%	
5d. IT Major Projects (if you don't capitalize)	0	0.00	1.34	4.52	0.38	6.46	0%	14%	16%	
6a. IT Strategy, Database Management and	2,375	9.43	12.79	14.45	14.14	17.96	29%	43%	44%	
Applications (excl. major projects)										
6b. IT Desktop, Networks, Telecom	2,020	8.02	8.02	9.59	6.11	7.25	25%	29%	18%	
Total Pension IT/IS cost (excludes below)	5,467	21.71	21.71	30.61	25.60	39.15	68%	92%	97%	
IT/IS Attributions to:1										
1f. Healthcare Administration	2,596	10.31	0.00	2.44	0.00	0.93	32%	7%	2%	
1g. Optional and Third Party Administered	0	0.00	0.00	0.32	0.00	0.45	0%	1%	1%	
Benefits										
Total Administration IT/IS cost	8,063	32.02	24.19	33.37	30.07	40.54	100%	100%	100%	

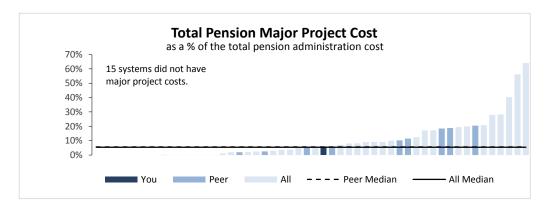
^{1.} Attributions of total administration IT/IS to non-pension activities 1f and 1g includes: (i) pro-rata share of Major Project attribution (5a - 5d) weighted by activity 5c and 5d's contribution to total Major Project cost; (ii) total attribution of activity 6a to 1f and 1g; (iii) pro-rata share of optional attribution (6b, 7a - 7f) to activities 1f and 1g weighted by activity 6b's contribution to total attribution. See section 4 - 'Activity Costs' for details.

Major project costs

Your major project cost was \$4.38 per active member and annuitant. This was below the peer median of \$6.86.



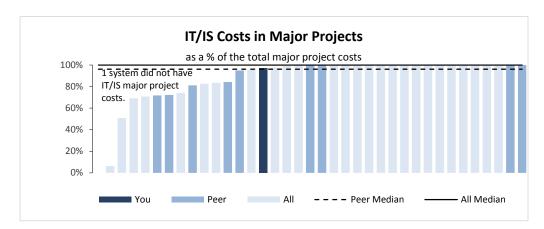
Your major project cost as a percent of total cost was 6%. This was equal to the peer median.



Major Project Cost by Category										
	Cost	Cost per Active Member and Annuitant					Cost as a % of Total			
	<u>in\$000</u>							Major Project Cost		
		Peer Peer All				Peer				
Activity	You	You	Median	Avg	Median	All Avg	You	Avg	All Avg	
5a. Amortization of non-IT Major Projects	30	0.12	0.00	0.01	0.00	0.05	2%	0%	0%	
5b. Non-IT Major Projects (if you don't capitalize)	0	0.00	0.00	1.34	0.00	0.98	0%	16%	6%	
5c. Amortization of IT Major Projects	1,073	4.26	0.87	2.05	0.00	7.48	66%	25%	49%	
5d. IT Major Projects (if you don't capitalize)	0	0.00	1.34	4.52	0.38	6.46	0%	55%	42%	
Total Pension Major Project cost (excludes below)	1,102	4.38	6.86	7.92	4.63	14.96	68%	97%	97%	
Major Project Attributions to:										
1f. Healthcare Administration	523	2.08	0.00	0.23	0.00	0.18	32%	3%	1%	
1g. Optional and Third Party Administered	0	0.00	0.00	0.03	0.00	0.23	0%	0%	2%	
Benefits										
Total Administration Major Project cost	1,625	6.45	7.37	8.17	4.73	15.37	100%	100%	100%	

IT/IS cost included in major project costs

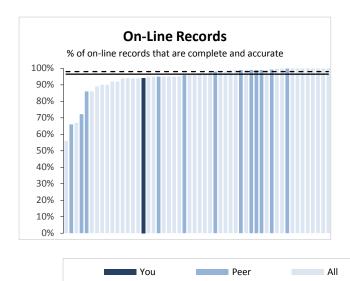
Your IT/IS major project costs as a percent of total major project costs was 97%. This was above the peer median of 96%.

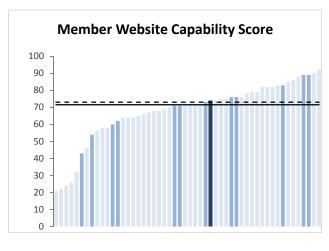


IT and major project attributions by activity

	Man	6a. IT Strategy, Database Management and Applications (excl. major projects)							•	jor Projects ough 5d.)					
	<u>\$s</u>	\$s per Active			As a % o	<u>of</u>	\$s per Active			<u> </u>	of_				
	M	Annuitant			total		Member and			<u>total</u>					
	A			Aı	าทูนitar										
	.,	Peer	All	.,	Peer	All		Peer	All	.,	Peer	All			
Activity	You	Avg	Avg	You	Avg	Avg	You	Avg	Avg	You	Avg	Avg			
1. Member Transactions															
a. Pension Payments	0.55	0.82	1.44	6%	6%	9%	0.26	0.27	1.40	6%	5%	10%			
b. Pension Inceptions	0.43	1.55	2.52	4%	10%	14%	0.20	0.84	1.93	4%	11%	18%			
c. Withdrawals and Transfers-out	0.55	0.77	1.10	6%	5%	6%	0.26	0.29	1.15	6%	5%	7%			
d. Purchases and Transfers-in	0.00	0.60	1.02	0%	4%	5%	0.00	1.65	2.34	0%	8%	7%			
e. Disability	<u>1.57</u>	1.00	0.46	<u>16%</u>	<u>5%</u>	<u>4%</u>	0.73	0.23	0.23	<u>16%</u>	<u>5%</u>	<u>4%</u>			
	3.11	4.74	6.53	32%	30%	37%	1.44	3.29	7.05	32%	34%	46%			
2. Member Communication															
a. Call Center	1.68	1.31	1.73	17%	10%	10%	0.78	0.48	1.19	17%	10%	10%			
b. Mail Room, Imaging	0.59	1.02	0.98	6%	7%	6%	0.27	0.18		6%	4%	4%			
c. 1-on-1 Counseling	1.12	0.71	0.42	11%	5%	3%	0.52	0.20	0.39	11%	4%	2%			
d. Presentations and Group Counseling	0.15	0.24	0.40	2%	1%	2%	0.07	0.05	0.09	2%	1%	1%			
e. Written Pension Estimates	0.00	0.56	0.57	0%	3%	3%	0.00	0.19	0.67	0%	4%	3%			
f. Mass Communication	0.15	0.76	<u>1.14</u>	<u>2%</u>	<u>6%</u>	<u>6%</u>	0.07	0.30		<u>2%</u>	<u>6%</u>	<u>6%</u>			
	3.69	4.60	5.25	38%	32%	30%	1.71	1.38	3.45	38%	29%	25%			
3. Collections and Data Maintenance															
a. Data and Money from Employers	1.27	1.70	2.48	13%	12%	13%	0.59		1.83	13%	14%	13%			
b. Service to Employers	0.00	0.61	0.89	0%	5%	5%	0.00	0.31	0.71	0%	5%	5%			
c. Data Not from Employers	0.60	<u>0.85</u>	0.74	<u>6%</u>	<u>6%</u>	<u>4%</u>	0.28	<u>0.59</u>		<u>6%</u>	<u>9%</u>	<u>4%</u>			
	1.87	3.16	4.10	19%	22%	22%	0.87	2.72	2.97	19%	28%	22%			
4. Governance and Financial Control															
a. Financial Administration and Control	0.86	1.46	1.16	9%	10%	6%	0.40	0.45		9%	7%	5%			
b. Board, Strategy, Policy	0.20	0.38	0.62	2%	3%	3%	0.09	0.06	0.39	2%	1%	2%			
c. Government and Public Relations	0.07	0.33	0.24	<u>1%</u>	<u>2%</u>	<u>1%</u>	0.03	0.07		<u>1%</u>	<u>1%</u>	<u>1%</u>			
	1.13	2.16	2.02	12%	15%	11%	0.52	0.57		12%	9%	7%			
Total Pension Administration	9.79	14.66	17.91	100%	100%	100%	4.55	7.96	15.00	100%	100%	100%			

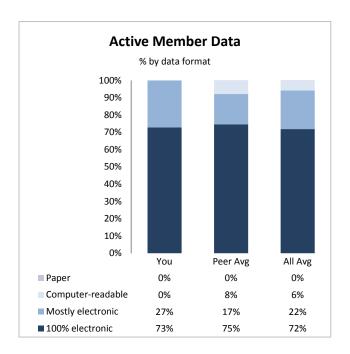
Key measures of CRM/IT capability

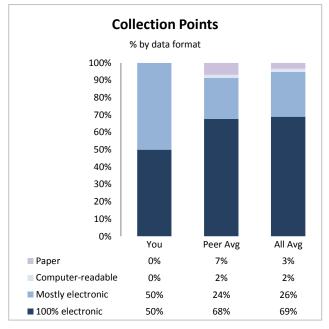




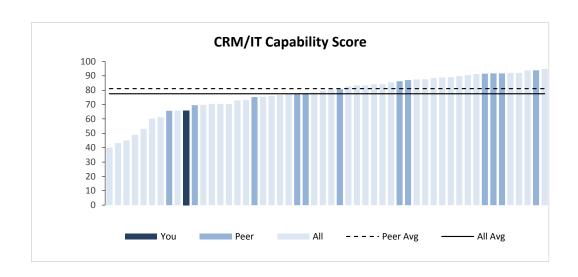
– All Median

- - - Peer Median





Your CRM/IT Capability score was 66 out of 100. This was below the peer average of 81.



Calculation of your CRM/IT capability score

Weight	Relevant Questions and Scoring	You	Peer Avg	All Avg
	CRM/ Call Capability			
Q44	When a member calls in, do you have immediate computer access to the following member data:			
	a) Record of the member's previous calls to the system?	Yes	85% Yes	77% Yes
	b) Copies of recent correspondence online?	Yes	92% Yes	92% Yes
	c) Knowledge based on-line help system available for use by the			
	service representative?	Yes	85% Yes	88% Yes
15%	Score: 100 if all available, otherwise 33.3 for each yes	100	87	86
Q44	When a member calls in, do you have immediate computer access to the following member data:			
	d) Most recent member statement?	Yes	100% Yes	100% Ves
	e) Beneficiary information?	Yes	100% Yes	
4%	Score: 100 if all available, otherwise 50 for each yes	100	100% 163	99

CRM/IT capability score

page 2 of 3

Veight		Relevant Questions and Scoring	You	Peer Avg	All Avg
	Q46	Do you provide the following information on an immediate real-time			
		basis to members over the phone? [If you do not have real-time			
		access to the information or if your policy is not to give the			
		information over the phone because of security or other concerns then your answer should be 'no'.]			
		a) Estimates of the member's pension at retirement?	No	69% Yes	67% Vo
		a1) Can you easily model and provide alternate annuity payment	NO	03/0 163	07/016
		scenarios? [i.e., joint and 50% survivor, joint and 70% survivor, etc.]	n/a	69% Yes	65% Va
		a2) Is the estimate based on an interactive benefit calculator linked to	11/ a	03/0 163	03/016
		the member's actual account data?	n/a	69% Yes	65% Va
10%		Score: 20 if yes to a1, 80 if yes to a2, otherwise 0	0	69	65
1070		Score. 20 If yes to d1, 80 If yes to d2, otherwise o	U	09	03
	Q46	b) Refund or transfer value assuming the member exited employment	Yes	92% Yes	73% Ye
		c) Pensionable salary?	Yes	92% Yes	
		d) Service credit history including gaps?	Yes	92% Yes	86% Ye
6%		Score: 100 if all available, otherwise 33.3 for each yes	100	92	82
	Q49	Do you have and use tools to help you project call volumes?	No	85% Yes	87% Ye
5%		Score: 100 if yes, otherwise 0	0	85	87
	Q35	c) Incoming calls satisfied by self-serve options, if any?	No	54% Yes	38% Ye
5%		Score: 100 if yes, otherwise 0	0	54	38
		Document Imaging			
	Q54	Do you use imaging technology?	Yes	100% Yes	100% Y
		a) Do you keep images of ALL incoming member correspondence and			
		submitted forms?	Yes	100% Yes	98% Ye
		c) Have all historical documents also been imaged?	No	69% Yes	65% Ye
5%		Score: 60 if you use imaging, 20 if you keep images of all incoming			
		correspondence and forms, 20 if all historical documents are imaged	80	94	93
		<u>Data Collection</u>			
	Q102	What is the breakdown of 'collection points' providing you with			
		payroll data between the following formats and what is the total			
		number of active members covered by each format?			
		a) 100% electronic	73%	75%	72%
		b) Mostly electronic	27%	17%	22%
		c) Computer-readable	0%	8%	6%
		d) Paper	0%	0%	0%
5%		Score: 100 X % of data collected 100% electronically, + 90 X % of data			
		collected mostly electronically, + 80 X % of data collected via			
		computer readable, otherwise 0	97	97	96

CRM/IT capability score

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Weight	Relevant Questions and Scoring	You	Peer Avg	All Avg
	Online Data Quality Q104 What % of your active and inactive member on-line records are			
	complete and accurate?	94%*	92%	94%
5%	Score: 100 X % of online records that are complete and accurate	94	92	94
	<u>Diagnostic Software</u>			
	Q106 Do you have a diagnostic software system for detecting and correcting			
	contribution errors?	Yes	100% Yes	87% Yes
5%	Score: 100 if yes, otherwise 0	100	100	87
	<u>Integration</u>			
	Q107 When you get an address change, how many systems do you need to			
	update?	2	1	1
5%	Score: 100 if 1, otherwise 0	0	85	83
	<u>Website</u>			
30%	Member website capability score	74	71	68
	[Refer to section 7 Service Levels: Mass communication - website for			
	details.]			
100%	Total CRM/ IT Capability Score - Average	66	81	78
	Total CRM/ IT Capability Score- Median	66	81	80

^{*} Your response was 'unknown'. A default was applied. See 'Appendix E' for details.

Appendices

Appendix A - Survey responses

- Member status changes
- Costs and FTE by activity
- Service and plan design

Appendix B - Foreign currency conversion

Appendix C - Activity definitions

Appendix D - Defaults

Appendix A - Survey responses: Member status changes

Kentucky RS

5. Complete the 'non-blank' boxes in the table below. Enter all values as positive numbers. Enter 0 if not applicable.

Active Inactive Disabled, Members Members Members Members Members Members Survivor) Total members a. Members at end of fiscal year 2014 b. Members at end of fiscal year 2015 Increase/-decrease to be explained Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer 139,569 130,354 108,784	Changes in N	Member S	tatus				
Active Inactive Disabled, Members Members Survivor) Total members a. Members at end of fiscal year 2014 b. Members at end of fiscal year 2015 Increase/-decrease to be explained Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active Inactive Disabled, Survivor) Members Members Vervivor 139,569 130,354 108,784 -1,027 4,916 4,514 4,821 0 4,821 0 4,710 1,156 f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer	<u> </u>					2014	
Active Inactive Disabled, Members Survivor) Total members a. Members at end of fiscal year 2014 b. Members at end of fiscal year 2015 Increase/-decrease to be explained Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer) 139,569 130,354 108,784 138,542 135,270 113,298 -1,027 4,916 4,514							Annuitants
Total members a. Members at end of fiscal year 2014 b. Members at end of fiscal year 2015 Increase/-decrease to be explained Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer				•			(Service,
Total members a. Members at end of fiscal year 2014 b. Members at end of fiscal year 2015 Increase/-decrease to be explained Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer) 139,569 130,354 108,784 139,569 130,354 108,784 148,780 113,298 -1,027 4,916 4,514 4,821 0 4,710 1,156 188 50 2,220 0 1 2,220 0 1 2,220 0 2,220 0 3 2,278 2 35				,			,
a. Members at end of fiscal year 2014 b. Members at end of fiscal year 2015 Increase/-decrease to be explained Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer		Members	Members	Survivor)	Members	Members	Survivor)
a. Members at end of fiscal year 2014 b. Members at end of fiscal year 2015 Increase/-decrease to be explained Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer							
b. Members at end of fiscal year 2015 Increase/-decrease to be explained Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer							
Increase/-decrease to be explained -1,027 4,916 4,514 Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer	·	139,569		108,784			
Decreases c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer	·			·			
c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer	Increase/-decrease to be explained	-1,027	4,916	4,514			
c. Full withdrawals/refunds/commuted value payments d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer							
d. Transfers-out to external pension systems e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer							
e. Annuity inceptions: service retirement f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer	c. Full withdrawals/refunds/commuted value payments	4,821	0				
f. Annuity inceptions: disability retirement g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer	d. Transfers-out to external pension systems	5	0				
g. Active members leaving to inactive status h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer	e. Annuity inceptions: service retirement	4,710	1,156				
h. Re-hired inactives and annuitants (if annuity stops) i. Deaths j. Non-death stops of pensions (i.e., dependent no longer	f. Annuity inceptions: disability retirement	188	50				
i. Deaths j. Non-death stops of pensions (i.e., dependent no longer 235	g. Active members leaving to inactive status	8,760					
j. Non-death stops of pensions (i.e., dependent no longer	h. Re-hired inactives and annuitants (if annuity stops)		2,220	0			
	i. Deaths	290	435	2,278			
k. Other decreases.	j. Non-death stops of pensions (i.e., dependent no longer			235			
	k. Other decreases.	0	0	0			
Increases	Increases						
I. New active members 15,275	I. New active members	15,275					
m Annuity inceptions: survivor, partner, ex-partner,	m Annuity inceptions: survivor, partner, ex-partner,			336		'	
n. Annuity inceptions: service retirement 5,866	n. Annuity inceptions: service retirement			5,866			
o. Annuity inceptions: disability retirement	o. Annuity inceptions: disability retirement						
p. Active members leaving to inactive status 8,760			8,760				
q. Re-hired inactives and annuitants (if annuity stops)	_	2,220	2,. 00				
r. Other increases.			O	n			
Explained increases/-decreases -1,279 4,899 3,927	Explained increases/-decreases	-1.279	4.899	3.927			
Unexplained increases/-decreases 252 17 587		· ·	,	•			

Appendix A - Survey responses: Cost and FTE by activity

Kentucky RS

	Your Res	sponse	
	2015	2014	
6. Complete the table below:			
Tabel administration are supposed from aid that great (CAFR in the U.S.)	21 020 0		/¢000
a. Total administrative expenses per your financial statements (CAFR in the U.S.)	31,020.0		(\$000
Less (if included in administrative expenses):			
b. Investment administration costs	1,634.7		(\$000
Plus, if not included in administrative expenses:			
c. Amortization and depreciation of administrative assets	1,625.4		(\$000
d. Actuarial fees and costs (excluding fees for investment performance measurement)	0.0		(\$000
e. Other costs and professional fees relating to pension administration	0.0		(\$000
f. Total benefit administration costs (to be attributed in question 9 below)	31,010.7		(\$000
7. Did you capitalize any administration costs last year?	No		yes/
If yes:	,		
a. Total amount capitalized?	n/a		\$0005
b. Salaries and benefits of staff, if any, included in the amount capitalized?c. Full-time-equivalent (FTE) of staff that pertain to the salaries being capitalized?			\$000s
d. Information technology costs included in the amount capitalized?	n/a		\$0009
a. Information technology costs included in the amount capitalized:			7000

Appendix A - Survey responses: Cost and FTE by activity - 2015

Kentucky RS

9. Complete the table below. Instructions and definitions are provided on the pages below the table.

	Direct		Direct Costs		A+++;h	outions	Ontional	
	full		Jirect Costs		Attrit		Optional	
	time	Salarios	Third Darty		5a-d	6a	Attri-	
			Third Party			IT Strategy,	butions ¹	
	equiv-	and	and Other		Major	DB Mgmt	6b +	Total
	alents	Benefits	Direct	Total	Projects	Applications	_	Attrib.
Activity	(# FTE)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
1. Member Transactions								
a. Pension Payments	7.4	686.7	0.0		64.9		0.0	204.6
b. Pension Inceptions	5.7	514.0	0.0		50.1	107.9	0.0	158.0
c. Withdrawals and Transfers-out	7.4	686.4	0.0	686.4	64.9	139.7	0.0	204.6
d. Purchases and Transfers-in	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
e. Disability	21.0	1,538.9	0.0	1,538.9	183.7	395.7	0.0	579.4
f. Healthcare Administration	55.0	4,133.5	2,497.3	6,630.8	480.6	1,035.5	0.0	1,516.1
g. Optional and Third Party Administered								
Benefits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. Member Communication								
a. Call Center	22.4	1,444.4	0.0	1,444.4	196.1	422.5	0.0	618.6
b. Mail Room, Imaging	7.8	367.7	0.0	367.7	68.6	147.7	0.0	216.3
c. 1-on-1 Counseling	14.9	1,131.9	0.0	1,131.9	130.5	281.2	0.0	411.7
d. Presentations and Group Counseling	2.1	188.0	0.0	188.0	18.0	38.7	0.0	56.7
e. Written Pension Estimates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f. Mass Communication	2.1	188.0	381.0	569.0	18.0	38.7	0.0	56.7
3. Collections and Data Maintenance								
a. Data and Money from Employers	17.0	1,431.8	0.0	1,431.8	148.2	319.4	0.0	467.6
b. Service to Employers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
c. Data Not from Employers	8.0	642.2	0.0	642.2	69.8	150.3	0.0	220.1
4. Governance and Financial Control								
a. Financial Administration and Control	11.6	1,070.8	0.0	1,070.8	100.9	217.5	0.0	318.4
b. Board, Strategy, Policy	2.7	399.9	0.0		23.4	50.4	0.0	73.8
c. Government and Public Relations	0.9	141.4	0.0	141.4	7.8	16.9	0.0	24.7
5. Major Projects								
a. Amortization of non-IT Major Projects	n/a	n/a	43.6	43.6				
b. Non-IT Major Projects (if you don't								
capitalize)	0.0	0.0	0.0	0.0				
c. Amortization of IT Major Projects	n/a	n/a		1,581.8				
d. IT Major Projects (if you don't	,	.,,		_,				
capitalize)	0.0	0.0	0.0	0.0				
6. Information Technology	0.0							
a. IT Strategy, Database Management								
and Applications (excl. major projects)	27.0	3,029.7	472 1	3,501.8				
b. IT Desktop, Networks, Telecom	14.0	1,631.4		2,979.5	1. CEM auto	nmatically		
7. Support Services and Other	17.0	1,001.4	1,070.1	_,5,5,5.5	attributed y	-		
a. Building and Utilities	4.0	245.7	1 251 3	1,497.0				
b. Human Resources	4.0	398.3	65.9	464.2		s 6b plus 7a-		
c. Actuarial	0.0	0.0	336.9	336.9	g, unless yo			
d. Legal and Rule Interpretation	16.0	1,557.8		2,279.6	attributions	yourself.		
e. Internal and External Audit	3.0	308.1	113.9					
f. Pay-as-you-go Benefits for Retired Staff	n/a	0.0	n/a	0.0				
g. Other Support Services		0.0	460.5	460.5				
	0.0				1.625.4	2 501 0	0.0	E 127.2
Total Administration (includes 1f, 1g)	254.0	21,736.5	9,274.2	31,010.7	1,625.4	3,501.8	0.0	5,127.2

Appendix A - Survey responses: Cost and FTE by activity - 2015

continued

Describe and provide the cost of:

The amortization for each of your capitalized projects in 5a. 'Amortization of non-IT Major Projects'	(\$000s)
Misc Building Assets	43.60
The amortization for each of your capitalized projects in 5c. 'Amortization of IT Major Projects'	(\$000s)
START (tech/database pension & insurance activities)	1,581.80

Appendix A - Survey responses: Service and plan design

Kentucky RS

Sur	vey Question	Yo	our Respons	se		Pe	eers 2015				All Pa	rticipants	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	Start													
1	Kentucky Retirement Systems													
2	Main survey contact: Karen Roggenkamp Chief Operations Officer Karen.Roggenkamp@kyret.ky.gov 502-696-8455													
3	What is the month of your fiscal year-end? [All questions in this survey													
_	are for your most recently completed fiscal year.]	June												
4	What was the end of fiscal year value of your pension fund assets (in billions)?	\$15.9												
8	What percentage of your total salary and benefits costs relates to benefits?	61.0%			61.0%	28.0%	23.7%	33.0%	13	61.0%	26.0%	5.0%	28.1%	44
	Service													
	Activity 1a - Pension Payments													
10	Do you administer annuity pensions? If no, skip to question 23	Yes			100% Y	es / 0% No	/ 0% n/a		13	100% Y	es / 0% No	o / 0% n/a		52
11	Were any of your pension payrolls late vis-à-vis your normal payment cycle? [For example, a payroll might be late because of IT system problems, etc.] If yes: a) How many payrolls were late? b) On average, how many days late were they?	No n/a n/a			0% Yes n/a n/a	/ 100% No n/a n/a	/ 0% n/a n/a n/a	n/a n/a	0	2% Yes 1 2.0	/ 98% No 1 2.0	/ 0% n/a 1 2.0	1 2.0	52 1 1
12	What percentage of pensioners are paid by check [as opposed to													-
	Electronic Funds Transfer ("EFT")]?	5.0%			11.0%	4.0%	0.1%	4.5%	13	11.0%	2.0%	0.0%	3.0%	44
13	Do you send out payment advices (i.e., gross/ net specifications) in paper format to members receiving EFT payments? If yes:	Yes				s / 8% No /					s / 6% No		51575	52
	a) How frequently do you send payment advices with your EFT payments detailing the gross payment and deductions?	Every Time Amount Changes			12	6	2	6	12	12	6	1	6	49
	b) Can you comply with a member's request not to send them payment	Changes			12	J	_	J	12	**	J	_	J	73
	advices?	No			15% Ye	s / 77% No	/ 8% n/a		12	29% Ye	s / 65% No	o / 6% n/a		49
	I control of the cont	1			I					I .				

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Sur	vey Question	Y	our Response	•		Pe	ers 2015				All Par	ticipants 2	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	Will you issue a pension payment in a foreign currency if the member requests it? Activity 1b - Pension Inceptions	No			0% Yes /	′ 100% No	/ 0% n/a		13	21% Yes	/ 79% No	/ 0% n/a		52
15	How many changes in gross amount of annuity pensions paid occurred as a result of changes in an individual annuitant's personal circumstances? For example: • When the spouse of an annuitant dies "last survivor" options result in decreases, and "pop-up" or "reversion" options result in increases. [Exclude annuitant deaths that result in new pensions paid to spouses.] • When an annuitant or their beneficiary becomes eligible for social security, it often results in a reduction of the gross pension paid. • Redesign of the payment option, appeal decisions, high low options shifting to low, etc.	7,034			7,034	312	0	915	13	167,490	625	0	5,329	52
16	How many formal appeals (non-disability) of pension inceptions did you have?	16			286	15	0	48	13	286	3	0	23	52
17	What percentage of annuity inceptions for: a) Retiring active members are paid without an interruption of cash flow greater than 1 month between the final pay check and the first pension check? b) Survivors are paid without an interruption of cash flow between the pensioner's final pension check and the survivor's first pension check?	90.0% Unknown			100.0%	98.0%	8.6%	89.2% 55.0%		100.0%		8.6%	89.1% 71.5%	51
18	Will you initiate a service retirement pension based on existing data or estimates, recognizing that you will have to finalize the payments later after you get final data? a) If yes, what proportion of your service retirement inceptions to retiring active members was based on existing data or estimates?	Yes 20.0%			77% Yes 99.1%	/ 23% No . 58.2%	/ 0% n/a 3.0%	57.3%		71% Yes		/ 0% n/a 0.0%	48.0%	52
	b) On average, how long did it take to finalize service retirement inceptions based on estimates? (in months)	15			24	2	1	5	10	24	2	0	3	35
19	Do you require birth certificates and/or marriage certificates before incepting a pension?	Yes			69% Yes	/ 31% No	/ 0% n/a		13	68% Yes	/ 32% No	/ 0% n/a		44
20	Do you require notarization of normal or early retirement applications? If some, describe those that require versus those that do not: n/a Activity 1c - Refunds, Transfers-out, Withdrawals	No			38% Yes	/ 46% No	/ 15% Som	e / 0% n/a	13	23% Yes	/ 58% No	/ 19% Som	e / 0% n/a	52

Survey Question		Yo	ur Response							All Par	ticipants 2	2015		
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
21 How many written estimates for refunds/ terminations/ ti did you prepare in response to member requests? [Include whether they result in a refund or not.]		3			88,881	2,654	8	12,608	10	2,014,28	1 4,100	0	53,253	45
How long does it take on average for you to issue a refund including any required wait period, beginning from the tin initial request by the member (in days)? a) Are you legislated to have a wait period before you can refund? If yes: b) How long is the wait period? (in days) c) Can the wait period be waived?	ne of the 5 effect a Y	55 'es 15 No			120	45 / 31% No , 45 / 46% No ,	30	54	13	214 41% Yes 120 9% Yes /	45	0	44 53	42 41 18 18
23 How long does it take on average for you to complete an it transfer-out to an external system, including delays cause parties, beginning from the time of initial request by the numbers business days)?	individual d by external nember (in	20			180	21	5	44		400	45	2	72	38
 Do you require notarization of refund or transfer-out appl some, no) a) If some, describe those that require versus those that d n/a Activity 1d - Purchases and Transfers-in 	N	No			23% Yes	/ 31% No ,	/ 46% Som	e / 0% n/a	13	13% Yes	/ 60% No	/ 25% Som	e / 2% n/a	51
25 Number of actual: a) Service credit purchases such as for prior refunded serv service, etc.? b) Upgrades or 'Top-ups' where members can improve the pensionable salary (but not service credit)? c) Upgrades where members can pay to upgrade from an retirement formula to a new retirement formula? d) Individual transfers-in from external defined benefit systemanle, many systems have reciprocal agreements with systems that permit members to transfer-in credit from the System when they join their System and vice versa? Do not	older nstems? [For 'sister' ne external ot include	.,700 n/a n/a			14,707 5 2,413	1,629 0 0	254 0 0	2,598 0 212	13 13	22,657 1,190 2,413	1,629 0 0	0 0 0	3,212 37 88	41 52 52
collective transfers-in.] How many written purchase, upgrade, or transfer-in estim prepare in response to member requests? [Include all esti whether these result in a purchase or not.]	nates did you mates	7,343			12,000	3,723	710	5,278		105,883		0	8,298	48
27 On average, how many business days does it take from th request to provide a written service credit purchase cost?		.80			180	6	1	32	12	240	10	1	32	43
28 How long does it take on average for you to do individual [Months from request to completion including delays causexternal parties] Activity 1e - Disability	sed by	ı/a			10	1	1	2	9	12	2	1	3	33
Total Try 20 Biodollity		© 2016	CEM Bencl	nmarkin	g Inc									

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Surv	vey Question	Yo	our Respons	e		Pe	eers 2015				All Pa	rticipants 2	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
29	Do you administer: a) Long-term disability/ disability pensions? b) Short-term disability? If you do not administer either short-term or long-term disability, or	Yes No				es / 0% No s / 85% No					s / 18% No s / 89% No	-		44 44
	disability pensions skip to question 35.													
30	Number of: a) Applications for disability pensions/ long-term disability? b) Members receiving long-term disability or a disability pension?	704			724	276	4	314		13,241	225	0	759	44
		8,288			9,234	4,117	56	3,367		65,844	4,271	56	7,594	36
	c) Applications for short-term disability (if you administer)?d) Members receiving short-term disability (if you administer)?e) Independent medical examinations for disability application	n/a n/a			3,155 3,311	0 1,927	0 543	272 1,927	2	3,155 3,311	0 1,862	0 5	149 1,769	5
	assessment or reassessment paid for by you, if any? f) New members that you reviewed the health status of? [For example, ESSS conducts Medical Classification Reviews on their new members. A Medical classification may reduce a member's entitlement to disability	19			625	17	0	161	13	3,695	6	0	266	44
	and/or death benefits.]	n/a			0	0	0	0		596	0	0	33	44
	g) Formal appeals of disability decisions? h) Recertifications of disabled members? [For example, Arizona SRS requires an annual opinion from a physician to continue on disability.]	125			125	21	0	28	13	1,990	2	0	68	52
	, , , , , , , , , , , , , , , , , , , ,	757			4,233	455	0	945	11	4,233	283	0	862	28
31	Do you cover non-occupational disability? [Some systems only cover disabilities that happen at work.] a) If yes, does either the amount paid or the taxation of the disability	Yes			100% Ye	es / 0% No	/ 0% n/a		13	82% Yes	s / 0% No /	′ 18% n/a		36
	benefit vary depending on whether the disability is occupational versus non-occupational? b) If yes to 'a' immediately above: Number of occupational disability	Yes			62% Yes	s / 38% No	/ 0% n/a		13	39% Yes	s / 43% No	/ 18% n/a		36
	applications?	375			439	7	0	115	8	793	28	0	122	17
	How many months, on average, does it take to return a decision on a disability application from: a) date of initial request from a member?	5			13	2	1	3	13	48	2	0	4	36
	b) date of receipt of all necessary documentation to complete an application?	2			3	2	0	2	13		1	0	2	34
33	Do you have an expedited method for processing disability for a terminally ill member?	Yes			85% Yes	s / 15% No	/ 0% n/a		13	61% Yes	s / 20% No	/ 18% n/a		36
34	Do you require notarization of disability applications? a) If some, describe those that require versus those that do not: n/a	No			23% Yes	s / 77% No	/ 0% Some	e / 0% n/a	13	23% Yes	s / 59% No	/ 0% Some	/ 18% n/a	36
	Activity 2a - Call Center													
	Volumes													
35	What were your volumes of:													

Survey Question	Y	our Respons	e		Pe	ers 2015				All Part	icipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?	198,089			239.692	142.623	70.527	142,380	13	701.327	144.010	6.576	172,196	52
b) Outgoing calls from service representatives responding to messages (voice mail, receptionist, etc.) or following-up on previous calls?	,			,	,	·	,			,	ŕ	ŕ	
(voice mail) receptionist, etc.) or rollowing up on previous calls.	19,055			57,562	13,306	1,613	14,669	13	85,848	12,082	282	15,422	52
c) Incoming calls satisfied by self-serve options, if any?d) Email queries from members?	n/a 3,767			97,163 16,788	70 6,611	0 0	11,105 7,524		805,408 93,200		0 0	25,157 16,408	52 52
Before Reaching a Service Rep													
In the table below, indicate whether or not each described outcome can occur when a member calls into your system seeking a knowledgeable person during business hours, and if yes, indicate the volume of occurrences.													
a) Busy signal, never enters the system?	Yes			31% Yes	/ 69% No /	′ 0% n/a		13	21% Yes	/ 79% No /	′ 0% n/a		52
b) Caller gets pre-recorded 'call another time' message during business hours?	Yes			31% Yes	/ 69% No /	′ 0% n/a		13	29% Yes	/ 71% No /	′ 0% n/a		52
c) Voice mail takes a message during business hours?	No				/ 62% No /	•			40% Yes		-		52
d) Abandoned calls in a menu (i.e., caller hangs-up before reaching the end of a self-serve menu branch that can answer his/her question or													
before reaching a queue)? e) Abandoned calls in a queue or on hold (i.e., caller hangs-up)?	Yes				/ 38% No / s / 0% No /	•			69% Yes 96% Yes		•		52 52
f) System hangs up on caller after he/she has waited in the queue longer than a pre-set time or if the queue becomes full? g) System sends the caller back to the main menu after he/she has	No				92% No / (4% Yes /				52
waited in the queue longer than a pre-set time or if the queue becomes full?	No			8% Yes /	85% No / 8	8% n/a		12	4% Yes /	92% No / 4	4% n/a		50
h) Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?	No			8% Yes /	85% No / 8	8% n/a		12	6% Yes /	90% No / 4	4% n/a		50
i) Call rings unanswered during business hours?	Yes			8% Yes /	92% No / 0	0% n/a		13	6% Yes /	92% No / 2	2% n/a		51
If yes: volume													
a) # Busy signal, never enters the system?	Unknown			2,384	358	0	775	4	3,408	492	0	1,154	11
b) # Caller gets pre-recorded 'call another time' message during business hours?	Unknown			4,525	2,036	94	2,173	4	203,604	1,923	0	22,149	15
c) # Voice mail takes a message during business hours?	n/a			5,352	3,384	70	3,207	5	10,697	599	1	2,176	21
d) # Abandoned calls (i.e., caller hangs-up while in a menu)?	Unknown			15,273	1,827	516	4,449	8	139,125	2,942	0	13,998	36
e) # Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	25,358			30,154	6,578	1,216	8,956	13	412,400	5,059	44	22,935	50
f) # System hangs up on caller (or sends the caller back to the main menu) after he/she has waited in the queue longer than a pre-set time													
or if the queue becomes full?	n/a			229	229	229	229	1	1,204	717	229	717	2

Survey Question	Ye	our Respons	ie .		Pe	ers 2015				All Par	ticipants 2	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
g) # System sends the caller back to the main menu after he/she has													
waited in the queue longer than a pre-set time or if the queue becomes	n/a			1,689	1,689	1,689	1,689	1	1,689	1,449	1,209	1,449	2
full? h) # Busy signal after navigating an automated attendant menu, or after	11/ 0			1,009	1,009	1,009	1,009		1,009	1,443	1,209	1,443	
being transferred by a receptionist?	n/a			25,819	25,819	25,819	25,819	1	228,947	45,713	25,819	100,160	3
i) # Call rings unanswered during business hours?	193			193	193	193	193		360	193	46	200	3
If volume is unknown, estimate the % of total calls that this outcome													
represents													
a) % Busy signal, never enters the system?	1.0%			1.0%	0.1%	0.0%	0.4%	3	1.0%	0.1%	0.0%	0.4%	5
b) % Caller gets pre-recorded 'call another time' message during	2.070			1.070	0.270	0.070	0.170	J	2.070	0.270	0.070	0.170	
business hours?	1.0%			1.0%	1.0%	0.1%	0.7%	3	2.0%	1.0%	0.0%	0.9%	7
c) % Voice mail takes a message during business hours?	n/a			3.0%	3.0%	3.0%	3.0%	1	3.0%	0.7%	0.0%	0.9%	7
d) % Abandoned calls (i.e., caller hangs-up while in a menu)?	Unknown			1.0%	0.5%	0.4%	0.6%	3	21.0%	1.0%	0.0%	3.1%	9
e) % Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?													
	n/a			n/a	n/a	n/a	n/a	0	5.0%	2.8%	0.5%	2.8%	2
f) % System hangs up on caller (or sends the caller back to the main													
menu) after he/she has waited in the queue longer than a pre-set time	2/2			2/2	2/2	2/2	2/2	0	2/2	2/2	2/2	2/2	0
or if the queue becomes full? g) % System sends the caller back to the main menu after he/she has	n/a			n/a	n/a	n/a	n/a	U	n/a	n/a	n/a	n/a	0
waited in the queue longer than a pre-set time or if the queue becomes													
full?	n/a			1.0%	1.0%	1.0%	1.0%	1	1.0%	1.0%	1.0%	1.0%	1
h) % Busy signal after navigating an automated attendant menu, or													
after being transferred by a receptionist?	n/a			n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
i) % Call rings unanswered during business hours?	n/a			n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
37 Do you have a menu system that callers negotiate before speaking to													
someone?	Yes			85% Yes	/ 15% No	/ 0% n/a		13	77% Yes	/ 23% No	/ 0% n/a		52
If yes:													
a) What is the average number of menu layers that must be navigated													
before a caller can speak to a live person? [Count each and every time a													
caller must select a menu option by pressing a button on the phone as a													
menu layer. Use the volume-weighted average number of menu layers													
if callers must negotiate different numbers of menu layers to reach a													
service representative on some menu-tree branches than on others.]	3			5	1	1	2	11	6	2	1	2	40
b) What is the average time in seconds that it would take a caller to													
negotiate the menu and listen to menu options before the caller is													
forwarded to a live person (or queue for a live person)?	118			150	39	6	52	11	165	44	6	55	40
c) Is the menu system by-passed if a service representative is available?	110			130	39	U	JL	11	103		U	55	40
e, is the menu system by passed if a service representative is available:	No			0% Yes	⁷ 85% No /	15% n/a		11	0% Yes /	77% No /	23% n/a		40
c1) If yes, what percentage of calls is the menu system by-passed?					,	•				,	•		
	n/a			n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
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Survey Question		Your Respons	se		Peers 2015 Max Med Min Avg # Max					All Par	ticipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
When a member calls in, is the first point of human contact receptionist(s) who transfers a high proportion of calls else organization? (indicate no if most calls go directly to a call	ewhere in the			8% Yes	/ 92% No /	0% n/a		13	6% Yes /	′ 94% No /	0% n/a		52
If yes:						•					-		
a) Do you have a queue for the receptionist(s)?	n/a			8% Yes	/ 0% No / 9	2% n/a		1	2% Yes /	4% No / 9	4% n/a		3
a1) If yes, what is the average wait time in seconds in the receptionist(s)?b) Approximately what percentage of callers are:	queue for the n/a			6	6	6	6	1	6	6	6	6	1
b1) Satisfied by the receptionist without forwarding?	n/a			2.0%	2.0%	2.0%	2.0%	1	25.0%	5.0%	2.0%	10.7%	3
b2) Forwarded by the receptionist to a queue for service representatives?b3) Forwarded by the receptionist to specific people or de				95.0%	95.0%	95.0%	95.0%		95.0%	77.5%	60.0%	77.5%	2
	n/a			3.0%	3.0%	3.0%	3.0%		90.0%	15.0%	3.0%	36.0%	3
b4) Receptionist takes a message?	n/a			0.0%	0.0%	0.0%	0.0%	1	5.0%	0.0%	0.0%	1.7%	3
39 Do you have a queue for service representatives? [The ent queue could be a recorded message, a menu system or a r	·			100% Y	es / 0% No	/ 0% n/a		13	98% Yes	/ 2% No /	0% n/a		52
a) Average wait time in seconds in queue for a service rep	261			261	84	9	84	13	485	48	3	83	51
b) Are calls automatically sent to voice mail when the que set wait time (i.e., callers are not given the option to wait)				8% Yes	/ 92% No /	0% n/a		13	12% Yes	/ 87% No	/ 2% n/a		51
Does your system notify the caller of the expected wait tir place in the queue, for reaching a knowledgeable service r if the expected wait exceeds a certain threshold?				38% Ye	s / 62% No	/ 0% n/a		13	33% Yes	/ 65% No	/ 2% n/a		51
41 Do you have a callback feature on your phone system? [i.e telephone number is placed in a queue for callback when to comes up] If yes:				23% Yes	s / 77% No	/ 0% n/a		13	13% Yes	/ 87% No	/ 0% n/a		52
a) What was the total volume of callbacks?	26,006			26,006	6,996	4,916	12,639	3	200,439	19,789	1,070	49,758	7
b) Are callbacks made as soon as the caller's turn in the quor at a later, designated time? b1) If callbacks are made as soon as the caller's turn in the	Queue queue comes			23% Que	eue/0% Des	ignated Tir	ne/77% n/a	3	12% Que	ue/2% Des	ignated Tir	ne/87% n/a	7
up, what is the average time between when the caller han when they are called back? c) Does the caller have the option of either leaving his nun	Unknowi	า		328	328	328	328	1	3,000	1,425	328	1,545	4
callback or choosing to remain on the line? d) What is the callback completion rate (i.e., what percent	Yes age of callers				s / 0% No /		02.70/			/ 0% No /		07.00/	7
that chose to be called back, were actually reached)?	99.1% © 20 3	16 CEM Ben	chmarkin	99.1% g Inc.	95.3%	86.8%	93.7%	3	99.1%	92.8%	60.0%	87.9%	7

Sur	vey Question	Yo	ur Respons	ie .		Pe	ers 2015				All Par	ticipants	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	After Reaching a Service Rep													
42	What was the:													
	a) % of callers transferred after first contact? (exclude receptionists)	Unknown			19.0%	5.7%	0.0%	6.5%	12	32.0%	4.1%	0.0%	6.3%	50
	b) % of callers you called back because their needs were not fully satisfied at first contact?c) % of calls satisfied by the first contact?	Unknown Unknown			8.1% 99.2%	1.9% 92.0%	0.0% 78.0%	2.8% 90.7%		20.0% 99.2%	2.0% 92.0%	0.0% 49.0%	3.7% 87.5%	44 49
43	If available, what was the:													
	a) Average talk time (in seconds)? [Do not include: hold or queuing time prior to a member reaching a knowledgeable person, or hold time after a member has reached a knowledgeable person.]	248.0			331.0	248.0	147.0	249.3	13	480.0	274.0	147.0	291.1	51
	b) Average after call work time (in seconds) when service representative is unavailable to take another call? c) Average occupancy %? [time spent handling calls, including after call work, as a percentage of total available time to answer calls.]	122.0			180.0	57.0	0.0	78.5	11	332.0	71.0	0.0	93.6	43
		83.8%			85.0%	70.0%	26.2%	68.2%	11	87.5%	73.0%	18.5%	68.4%	38
44	When a member calls in, do you have immediate computer access to the following member data: a) Record of the member's previous calls to the system?	Yes			85% Vo	s / 15% No	/ 0% n/a		12	77% Vo	s / 23% No	/0% n/a		52
	b) Copies of recent correspondence online?	Yes				s / 0% No /	•	/ 0% n/a			s / 6% No /		/ 0% n/a	52
	c) Knowledge based on-line help system available for use by the service	163			92/016	5 / U/0 NU /	676 Julie /	070 H/a	13	3270 TE	5 / U/0 NU /	270 JOINE	0/011/4	32
	representative?	Yes			85% Ye	s / 15% No	/ 0% n/a		13	88% Ye	s / 12% No	/ 0% n/a		52
	d) Most recent member statement?	Yes			100% Y	es / 0% No	/ 0% n/a		13	100% Y	es / 0% No	/ 0% n/a		52
	e) Beneficiary information?	Yes			100% Y	es / 0% No	/ 0% n/a		13	96% Ye	s / 4% No /	0% n/a		52
45	Do your service representatives have real-time access to a workflow system that lets them know the status of open items?	Yes			85% Yes	s / 15% No	/ 0% n/a		13	85% Ye	s / 15% No	/ 0% n/a		52
46	Do you provide the following information on an immediate real-time basis to members over the phone? [If you do not have real-time access to the information or if your policy is not to give the information over the phone because of security or other concerns then your answer should be 'no'.] a) Estimates of the member's pension at retirement?	No			69% Ye	s / 31% No	/ 0% n/a		13	67% Ye	s / 33% No	/ 0% n/a		52
	If yes: a1) Can you easily model and provide alternate annuity payment													
	scenarios? [i.e., joint and 50% survivor, joint and 70% survivor, etc.]	n/a			69% Yes	s / 31% No	/ 0% n/a		13	65% Ye	s / 35% No	/ 0% n/a		52
	a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?	n/a			69% Yes	s / 31% No	/ 0% n/a		13	65% Ye	s / 35% No	/ 0% n/a		52

Sur	vey Question	Yo	our Respons	e		F	Peers 201	5			All Pa	rticipants	2015	
		2015	2014	2013	Max	Med	l Min	Avg	#	Max	Med	Min	Avg	#
	b) Refund or transfer value assuming the member exited employment	Yes			029/ Vac	/ 90/ No	/ 0% n/a		12	729/ Var	- / 270/ NA	o / 0% n/a		52
	at the time of the call? c) Pensionable salary?	Yes				-	/ 0% n/a				•	o / 2% n/a		51
	d) Service credit history including gaps?	Yes				-	/ 0% n/a				•	o / 2% n/a		51
	e) Cost to purchase service credit?	No				-	o / 0% n/a				•	o / 6% n/a		49
	f) If you administer a DC plan:				0370.03	, 52,611	0, 0,0.1,0			02/0100	,,	5 / 5 / 5 / 1 / G		
	f1) Current value of the DC account?	n/a			38% Yes	/ 0% No	/ 62% n/a		5	23% Yes	s / 2% No	/ 75% n/a		11
	f2) Estimate of the value of the DC account at retirement?	n/a				-	/ 62% n/a		5		•	/ 75% n/a		11
	f3) History of account transactions?	n/a			38% Yes	/ 0% No	/ 62% n/a		5	23% Yes	s / 2% No	/ 75% n/a		11
47	Can members calling in perform the following transactions over the													
	phone: a) Change address?													
		Yes				-	o / 0% n/a				•	o / 0% n/a		44
	b) Add or change email address? c) Change payment instructions? [i.e., bank account]	Yes				-	o / 0% n/a				•	o / 2% n/a		51
	d) If you administer a DC plan, switches to investment options?	No				-	o / 0% n/a				•	o / 0% n/a		44
		n/a			8% Yes /	23% NO	/ 69% n/a		4	9% Yes	/ 16% NO	/ 75% n/a		11
	Quality and Other													
48	Do you review your staff's responses to member calls for coaching													
	purposes on a regular basis? [As opposed to intermittent or only while training new service representatives, etc.]													
	araning new service representatives, etc.,	Yes			92% Yes	/ 8% No	/ 0% n/a		13	87% Yes	s / 13% No	o / 0% n/a		52
	If yes:													
	a) How many calls per agent per month (on average) do you monitor?	1			30	5	1	7	12	30	4	1	5	45
	b) Are you listening in on a live call or a recording?	Both			-			, oth/8% n/a					th/13% n/a	45
10						•	•	ULII/8% II/a					111/13% 11/a	
49	Do you have and use tools to help you project call volumes?	No			85% Yes	/ 15% No	o / 0% n/a		13	87% Yes	s / 13% No	o / 0% n/a		52
50	Do you have a toll free number (or a number where members are only													
	charged the cost of a local call no matter where they are located) that members can call to get a real person (not just an info line)?													
	interibers can can to get a real person (not just an inio line):	Yes			100% Ye	s / 0% No	o / 0% n/a		13	87% Yes	s / 13% No	o / 0% n/a		52
51	How many hours per week is your 'call center' operational?	42.5			53.0	45.0	40.0	45.2	13	62.5	45.0	32.5	45.9	52
52	Can members communicate questions using email?	Yes			92% Yes	/ 8% No	/ 0% n/a		13	96% Yes	s / 4% No	/ 0% n/a		52
	a) If yes, what is the average time (in business days) to respond to an													
	email query? Do not include auto-responses or confirmation of email	1.5			1.5	1.0	0.5	0.9	12	7.0	1.3	0.4	1.8	50
	receipt.	1.5			1.5	1.0	0.5	0.3	12	7.0	1.3	0.4	1.0	30
	Activity 2b - Mail Room, Imaging													
53	What were your volumes of:													

Sur	rey Question	Yo	our Respons	e		Pe	ers 2015				All Part	icipants	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	a) Incoming mail?	75,869			289,337	85,546	59,100	116,608	13	785,774	105,081	4,408	163,836	52
	b) Outgoing mail?	435,677			1,459,047	435,677	97,369	641,698	13	5,869,974	385,003	6,665	1,011,190	52
54	Do you use imaging technology?	Yes			100% Ye	s / 0% No ,	/ 0% n/a		13	100% Yes	s / 0% No /	′ 0% n/a		52
	If yes:													
	a) Do you keep images of ALL incoming member correspondence and													
	submitted forms?	Yes			100% Ye	s / 0% No ,	/ 0% n/a		13	98% Yes	/ 2% No / (0% n/a		52
	b) If not all, describe the member documents you do keep images of below:													
	n/a													
	c) Have all historical documents also been imaged?	No			69% Yes	/ 31% No ,	/ 0% n/a		13	65% Yes	/ 35% No /	′ 0% n/a		52
	Activity 2c - 1-on-1 Member Counseling													
55	Do you provide 1-on-1 counseling?	Yes			100% Ye	s / 0% No ,	/ 0% n/a		13	94% Yes	/ 6% No / (0% n/a		52
	If you do not offer 1-on-1 counseling skip to question 65.													
56	Provide the number of members counseled 1-on-1 that were:													
	a) Pre-scheduled and/or walk-in counseled in-house? [Include only if													
	the member actually sees a counselor. Exclude 'walk-through' traffic													
	(i.e., picking up brochures or forms) where needs can be met by the	7,651			21,518	6,218	1,836	7,562	13	21,830	2,813	0	4,658	48
	receptionist.] b) In the field at locations separate from the member's place of	,			,-	-, -	,	,		,	,-			
	employment?	0			6,047	546	0	1,523	13	20,940	78	0	1,274	52
	c) At the member's place of employment?	704			4,740	0	0	705	13	9,891	0	0	547	52
	d) Via teleconference? [These are pre-scheduled counseling sessions													
	that cover materials sent to the member in advance of the session.]	0			1,679	0	0	217	13	117,918	0	0	2,639	52
	(Total counseled 1-on-1)	8,355			22,689	7,125	3,056	10,007	13	117,918	3,986	0	8,759	52
57	Is 1-on-1 retirement counseling a freely available option for most													-
	members? [If the only 1-on-1 counseling you do is for VIPs, disability,													
	exceptions and emergencies then your answer should be no.]	Voc			100% Va	s / 0% No ,	/ 00/ 5/5		12	90% Yes	/ 40/ No /	C0/ n/n		49
		Yes			100% 16	S / U% NU ,	7 U% II/a		13	90% res	/ 4% NO / I	0% II/ d		49
58	Do you limit 1-on-1 counseling by:													
	a) Requiring that members be within a certain time period of earliest possible retirement?	No			8% Yes /	92% No /	0% n/a		13	6% Yes /	88% No / (6% n/a		49
	b) Placing a limit on the number of counseling sessions a member can					,	, .				,	,		
	request?	No			8% Yes /	92% No /	0% n/a		13	4% Yes /	90% No /	6% n/a		49
	c) Indicating that members should contact their employers or unions	No			8% Voc /	92% No /	0% n/a		12	4% Yes /	90% No /	5% n/a		49
	first for counseling? d) Other (describe)?	No				100% No	•			8% Yes /	•	•		45
	n/a	INU			0/0 165/	100/0 INU /	0/011/d		13	0/0 165/	13/0 NU /	13/011/d		40
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Survey Question	Y	our Response)		P	eers 2015				All Part	ticipants	2015	
ourse, question	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
59 Do you provide counseling for walk-in traffic?	Yes			92% Yes	s / 8% No /	′ 0% n/a		13	85% Ye	s / 10% No ,	/ 6% n/a		49
If yes:													
a) On average, how long does a walk-in member that requests a													
counseling session typically have to wait till they can meet with a					_					_		_	
counselor? (minutes)	30			30	6	0	9	12	30	5	0	8	44
b) Approximately what percentage of walk-in members requesting a counseling session are turned away, or scheduled for another time, o	r												
leave with their needs unsatisfied because they decide the wait was t													
long?	30.0%			30.0%	0.0%	0.0%	2.6%	12	99.0%	0.0%	0.0%	7.6%	44
60 Do you offer prescheduled 1-on-1 counseling?	Yes			92% Yes	s / 8% No /	′ 0% n/a		13	85% Ye	s / 10% No	/ 6% n/a		49
a) If yes, how long does a member that requests a pre-scheduled													
counseling session typically have to wait, in business days, before he													
can meet with a counselor for an in-house 1-on-1 counseling session?	40			50	3	0	10	12	50	1	0	7	44
	40			30	<u> </u>		10	12	50	1			44
61 Do you offer 1-on-1 counseling sessions after normal working hours,	No			62% Yes	s / 38% No	/ 0% n/a		13	42% Ye	s / 52% No ,	/ 6% n/a		49
such as evenings and/or weekends?	140			0270 103	37 3070 140	7 070 117 0			42/010	3/ 32/0140/	7 070 117 0		
62 If you provide 1-on-1 counseling in the field, indicate the number of different field locations where you provided 1-on-1 counseling last ye	ar												
that were at:	ai												
a) Field offices staffed on a full-time basis and located in cities differe	nt												
from your main office?	0			1	1	0	1		20	1	0	3	24
b) Member's place of employment?	41			489	8	0	62	10	9,891	16	0	437	31
c) Intermittent locations (such as hotels, offices) separate from the	0			357	19	0	54	10	2,321	20	0	106	34
member's place of employment?	-			337	19	0	J4 	10	2,321	20	0	100	34
63 For 1-on-1 counseling sessions that are walk-ins, prescheduled in-hou and in the field:	se												
a) Do almost all sessions take place in a private office with a door (versus a cubicle, etc.)?													
a1) Walk-in traffic in-house?	Yes			77% Yes	s / 15% No	/ 8% n/a		12	77% Ye	s / 8% No /	15% n/a		44
a2) Pre-scheduled in-house?	Yes				s / 8% No /					s / 8% No /	•		44
a3) In-the-field?	No				s / 31% No	•				s / 21% No ,	=		37
b) Do you have real-time access to the member's data (i.e., salary,					•						,		
service credit, refund value, beneficiaries, etc.)?													
b1) Walk-in traffic in-house?	Yes			92% Yes	s / 0% No /	′ 8% n/a		12	85% Ye	s / 0% No /	15% n/a		44
b2) Pre-scheduled in-house?	Yes			85% Yes	s / 8% No /	′ 8% n/a		12	85% Ye	s / 2% No /	13% n/a		45
b3) In-the-field?	No			69% Yes	s / 23% No	/ 8% n/a		12	58% Ye	s / 13% No ,	/ 29% n/a		37
c) Do you provide new written estimates on a real-time basis for													
anybody that wants one?													
c1) Walk-in traffic in-house?	Yes				s / 23% No	/ 8% n/a		12	69% Ye	s / 15% No ,	/ 15% n/a		44
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Surv	vey Question	Yo	our Response	e		Pe	eers 2015				All Par	ticipants	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	c2) Pre-scheduled in-house?	Yes			77% Yes	/ 15% No	/ 8% n/a		12	77% Yes	s / 8% No /	15% n/a		44
	c3) In-the-field?	No			54% Yes	/ 38% No	/ 8% n/a		12	44% Yes	s / 27% No	/ 29% n/a		37
	d) Do you provide an accurate cost to purchase service credit on a real- time basis for anybody that wants one?													
	d1) Walk-in Traffic In-house?	Yes			69% Yes	/ 23% No	/ 8% n/a		12	50% Yes	s / 27% No	/ 23% n/a		40
	d2) pre-scheduled In-house?	Yes			77% Yes	/ 15% No	/ 8% n/a		12	60% Yes	s / 19% No	/ 21% n/a		41
	d3) In-the-field?	No			54% Yes	/ 38% No	/ 8% n/a		12	35% Yes	s / 29% No	/ 37% n/a		33
	e) If you administer a DC plan, can you provide future retirement income and/ or account balance projections based on the member's account information and various market scenarios?													
	e1) Walk-in Traffic In-house?	n/a			15% Yes	/ 8% No /	77% n/a		3	14% Yes	s / 7% No /	80% n/a		9
	e2) pre-scheduled In-house?	n/a			15% Yes	/ 8% No /	77% n/a		3	14% Yes	s / 7% No /	80% n/a		9
	e3) In-the-field?	n/a			15% Yes	/ 8% No /	77% n/a		3	9% Yes ,	/ 7% No / 8	4% n/a		7
64	Do you review 1-on-1 counseling sessions for coaching purposes on a regular basis? [As opposed to intermittent or only while training new counselors, etc.]	No			54% Yes	/ 46% No	/ 0% n/a		13	46% Yes	s / 48% No	/ 6% n/a		49
	Activity 2d - Member Presentations and Group Retirement													
65	Do you offer member presentations (including group counseling)?	Yes			100% Ye	s / 0% No	/ 0% n/a		13	96% Yes	s / 4% No /	0% n/a		52
	If you do not offer member presentations skip to question 72.													
66	How many benefit fairs did you host or participate in?	16			204	16	7	44	13	388	10	0	37	44
67	How many presentations (including group counseling sessions) for members or annuitants [exclude presentations to employers] did you do that took place: a) In-house?	0			192	3	0	32	13	192	0	0	16	52
	b) In the field?	97			650	97	0	183	13	1,373	99	0	261	52
	c) Via live webinar? [i.e., a real-time, online presentation that allows two-way communication between the presenter and audience]													
		46			140	2	0	19	13	234	2	0	18	52
68	What was the total number of attendees at all of the presentations per question 67 above? [Exclude benefit fair attendees per question 66]	5,200			15,623	6,697	1,316	7,423	13	41,638	6,672	176	9,311	50
69	Did you do specific presentations for members, in the past fiscal year, targeted solely for: a) New members?	Yes				,	<u> </u>	7,125			,		3,322	
	b) Members in mid career?					/ 23% No	•				5 / 29% No	•		49
	•	No				/ 46% No					s / 35% No			49
	c) Members approaching retirement or ready to retire?	Yes			100% Ye	s / 0% No	/ U% n/a		13	90% Yes	s / 4% No /	6% n/a		49

Surv	ey Question	You	ır Responso	e		Pe	ers 2015				All Part	ticipants	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	d) Healthcare?	Yes			54% Yes	/ 46% No ,	/ 0% n/a		13	36% Yes	/ 59% No ,	/ 5% n/a		42
	e) Changes to benefits?	Yes			38% Yes	/ 62% No ,	/ 0% n/a		13	42% Yes	/ 52% No ,	/ 6% n/a		49
	f) Other? (Please describe)	No			69% Yes	/ 23% No ,	/ 8% n/a		12	67% Yes	/ 23% No ,	/ 10% n/a		47
	<u>n/a</u>													
	Do you offer presentations after normal working hours such as evenings and/or weekends?	No			92% Yes	/ 8% No /	0% n/a		13	87% Yes	/ 8% No /	6% n/a		49
-	Do you review presenters for coaching purposes on a regular and				3270 103	, 6,0110 ,	070 H/ U			0770 103	7 670 110 7	070 HJ U		
	recurring basis? [As opposed to intermittent or only while training new													
	presenters, etc.]	Yes			85% Yes	/ 15% No ,	/ 0% n/a		13	83% Yes	/ 12% No ,	/ 6% n/a		49
	Activity 2e - Written Pension Estimates													
72	Do you offer written pension estimates to members?	Yes			100% Yes	s / 0% No ,	/ 0% n/a		13	100% Ye	s / 0% No ,	/ 0% n/a		52
	If no, go directly to question 79.													
73	How many written pension estimates did you mail out pursuant to													
	individual member requests? [Exclude estimates prepared during				444.020	0.542	1.004	26.046	4.2	040466	0.225	276	25.042	
	counseling sessions and not mailed in advance.]	Unknown			144,930	8,513	1,004	26,046	13	949,166	8,325	276	35,943	52
74	When a member requests multiple different estimate scenarios, do you													
	count each scenario as an 'estimate' or do you count the 'multiple	Each Scenario			60% Fack	Scenario	/ 31% Sind	gle Estimate	12	50% Fac	h Scanaria	/ 50% Sin	ala Estimata	52
	request' as a single estimate? a) If you count each scenario, what is the approximate average number	Lacii Scellalio			0370 Laci	i Scenario	/ 31/0 Sille	sie Estimate	13	30% Lac	ii Scenario	/ 50/0 5111	sie Estimate	32
	of scenarios per request by a member?	3			15	2	1	4	9	15	2	1	2	26
75	On average, how many business days does it take to provide a written													
	pension estimate from the time of initial request from a member?													
	[Exclude time in the mail.]	180			180	5	0	20	13	180	5	0	12	52
	a) Is this a number you regularly measure and track (versus an	Yes			92% Ves	/ 8% No /	0% n/a		13	92% Ves	/ 8% No /	0% n/a		52
\vdash	estimate)?	103			J2/0 Te3	7 870 140 7	070 H/ a			J2/0 Te3	7 870 140 7	070 117 a		- 52
	Can members request and obtain a written pension estimate at any time during their career? [As opposed to, for example, requiring that													
	the member be within a certain time period of earliest potential													
	retirement before they can request a pension estimate.]													
	reducing a period carried and reducit a period of estimater.	Yes			77% Yes	/ 23% No ,	/ 0% n/a		13	87% Yes	/ 13% No ,	/ 0% n/a		52
	a) If no: describe the time constraint?													
	<u>n/a</u>													
77	Do you place a limit on the number of written pension estimates that a													
	member can request?	No			23% Yes	/ 77% No ,	/ 0% n/a		13	19% Yes	/ 81% No ,	/ 0% n/a		52
	a) If yes, describe the limit?													
	,													
	<u>n/a</u>													
\square	Do your written pension estimates (including cover letters, etc. sent													

Survey Question	Ye	our Respons	e		Pe	ers 2015				All Part	icipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Clearly address if and how the pension is inflation protected (or not protected)?	No			62% Yes	/ 38% No ,	/ 0% n/a		13	63% Yes	/ 37% No /	′ 0% n/a		52
b) If your pension is coordinated with or reduced by social security (or													
CPP in Canada) is the impact explained?	Yes			31% Yes	/ 23% No ,	/ 46% n/a		7	57% Yes	/ 16% No /	′ 27% n/a		32
c) Discuss alternative scenarios that could improve the pension such as	Vaa			020/ 1/	/ 00/ N = /	00/ - /-		12	040/ 1/	/ 400/ N -	1004 - 1-		
purchasing service credit or working longer?	Yes				/ 8% No /	•			81% Yes	•	-		52
d) Model alternative retirement payment options?	Yes			100% Ye	s / 0% No ,	/ 0% n/a		13	83% Yes	/ 15% No /	2% n/a		51
Activity 2f Mass Communication: (i) Website													
Are all, most or some of your forms available online for either													
completion or downloading?	Most			38% All ,	23% Som	e / 38% Mos	st / 0% n/a	13	37% All /	17% Some	e / 46% M	ost / 0% n/a	52
80 Does your website have a secure member area where members can													
access their own data?	Yes			100% Ye	s / 0% No ,	/ 0% n/a		13	94% Yes	/ 6% No / (0% n/a		52
If yes:													
a) How many unique members accessed the secure member area?													
[Count a member only once even if he visited multiple times.]	40.454			227.064	67.020	40.650	05.605			67.400	2 45 4	425.005	42
	49,451			237,964	67,029	18,659	85,695	11	1,570,349	67,122	2,454	125,905	42
b) How many visits in total were there by members to the secure													
member area? [Count each visit even if the same member visits multiple times.]	297,970			1.734.184	280.301	48,485	486.255	13	3.474.434	243.552	9.741	516,357	47
c) If a member wants to register for the first time, does he/she have to						,	,		-,,	,	-,	0=0,000	
wait for a password in the mail?	No			8% Yes /	92% No /	0% n/a		13	17% Yes	/ 77% No /	′ 6% n/a		49
d) Do you welcome the member by name on the home page of the													
secure member area?	Yes			100% Ye	s / 0% No ,	/ 0% n/a		13	85% Yes	/ 10% No /	′ 6% n/a		49
e) Are users required to acknowledge a disclaimer every time they log													
in?	No			15% Yes	/ 85% No ,	/ 0% n/a		13	13% Yes	/ 81% No /	6% n/a		49
f) Are users required to acknowledge a disclaimer every time they	No			28% Voc	/ 62% No	/ 0% n/a		12	27% Yes	/ 62% No.	/ 10% n/a		47
generate a pension estimate? g) Do inactive members have access to the secure member area?						•				•	•		
by bo mactive members have access to the secure member area:	Yes			100% Ye	s / 0% No ,	/ U% n/a		13	79% Yes	/ 15% NO /	6% n/a		49
81 Indicate whether the following capabilities are available on your													
website and provide volumes:													
a) Benefit calculator in non-secure area?	Yes			46% Yes	/ 54% No ,	/ 0% n/a		13	46% Yes	/ 54% No /	′ 0% n/a		52
b) Benefit calculator in secure area not linked to member data?	No			23% Yes	/ 77% No ,	/ 0% n/a		13	12% Yes	/ 88% No /	′ 0% n/a		52
c) Benefit calculator in secure area linked to member's salary and													
service data?	Yes				/ 15% No ,	•			87% Yes	-	-		52
d) Service credit purchase calculator?	Yes			62% Yes	/ 38% No ,	/ 0% n/a		13	68% Yes	/ 27% No /	′ 5% n/a		42
e) Register for 1-on-1 counseling sessions?	No			38% Yes	/ 62% No ,	/ 0% n/a		13	31% Yes	/ 65% No /	′ 4% n/a		50
e1) If yes, does the member have real-time access to available dates	- /-			2007.17	100/2: 1	c20/ - /		اے	220/ 1/	1.00/ 1: 1:	740/ /		1-
and times?	n/a				/ 0% No /	•			23% Yes				15
f) Register for presentations?	Yes			69% Yes	/ 31% No ,	/ 0% n/a		13	52% Yes	/ 42% No /	6% n/a		49
g) Live chat?	No			0% Yes /	100% No	/ 0% n/a		13	6% Yes /	92% No / :	2% n/a		51

Survey Question	Yo	our Response	e		Pe	ers 2015				All Par	ticipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
h) Change address?	Yes			100% Ye	s / 0% No	/ 0% n/a		13	82% Yes	/ 18% No	/ 0% n/a		44
i) Change beneficiary?	No			31% Yes	/ 69% No	/ 0% n/a		13	43% Yes	/ 55% No	/ 2% n/a		43
j) Change email address?	Yes			92% Yes	/ 8% No /	0% n/a		13	81% Yes	/ 17% No	/ 2% n/a		51
k) Reset password?	Yes			85% Yes	/ 15% No	/ 0% n/a		13	73% Yes	/ 21% No	/ 6% n/a		49
I) Change banking information for direct deposit?	Yes			54% Yes	/ 46% No	/ 0% n/a		13	45% Yes	/ 55% No	/ 0% n/a		44
m) Change tax withholding amount?	Yes			77% Yes	/ 23% No	/ 0% n/a		13	57% Yes	/ 43% No	/ 0% n/a		44
n) Download or print duplicate tax receipts? [i.e., 1099s in the U.S.]	Yes			85% Yes	/ 15% No	/ 0% n/a		13	69% Yes	/ 31% No	/ 0% n/a		52
o) View pension payment details? [i.e., gross amounts, deductions]	Yes			100% Ye	s / 0% No	/ 0% n/a		13	75% Yes	/ 25% No	/ 0% n/a		52
p) Submit a retirement application online?	No			23% Yes	/ 77% No	/ 0% n/a		13	21% Yes	/ 79% No	/ 0% n/a		52
If yes:													
p1) Does the online application provide an estimate, final value or neither of the annuity payment the member will receive? p2) Approximately what % of retirements submitted online require	n/a			0% Final/1	L5% Neith	er/15% Est	./69% n/a	4	13% Final	/8% Neith	er/19% Es	t./60% n/a	21
follow-up documents or signatures to be mailed in?	n/a			100.0%	60.0%	30.0%	63.3%	3	100.0%	100.0%	0.0%	73.6%	18
q) View status of online retirement application?	n/a			15% Yes	/ 15% No	/ 69% n/a		4	15% Yes	/ 25% No	/ 60% n/a		21
r) Apply for a refund or transfer-out?	n/a			23% Yes	/ 69% No	/ 8% n/a		12	27% Yes	/ 65% No	/ 8% n/a		48
s) Secure mailbox or digital file including history of recent													
correspondence and member documents?	No			31% Yes	/ 69% No	/ 0% n/a			35% Yes		•		51
t) Download member statement? [i.e., Adobe format]	Yes			85% Yes	/ 15% No	/ 0% n/a		13	85% Yes	/ 13% No	/ 2% n/a		51
u) Upload documents (such as birth certificates)?	No			15% Yes	/ 85% No	/ 0% n/a		13	19% Yes	/ 77% No	/ 4% n/a		50
v) View pensionable earnings and/or service without downloading?	Yes			92% Yes	/ 8% No /	0% n/a		13	85% Yes	/ 13% No	/ 2% n/a		51
If yes:													
v1) Are both salary and service data available?	Yes			92% Yes	/ 0% No /	8% n/a		12	83% Yes	/ 2% No /	15% n/a		44
v2) Is online data up-to-date to the most recent pay period?	No			54% Yes	/ 38% No	/ 8% n/a		12	62% Yes	/ 23% No	/ 15% n/a		44
v3) Is a complete annual history from the beginning of employment provided?	No			54% Yes	/ 38% No	/ 8% n/a		12	50% Yes	/ 35% No	/ 15% n/a		44
w) If you administer a core DC or hybrid DB/ DC plan:													
w1) Switch between investment options?	n/a			15% Yes	/ 15% No	/ 69% n/a		4	23% Yes	/ 7% No /	70% n/a		13
w2) Change deferral percentage selections for regular contributions?													
	n/a			8% Yes /	23% No /	69% n/a		4	9% Yes /	20% No /	70% n/a		13
w3) Initiate withdrawals?	No			8% Yes /	31% No /	62% n/a		5	11% Yes	/ 20% No	/ 68% n/a		14
w4) View current valuation of their account?	Yes			23% Yes	/ 15% No	/ 62% n/a		5	23% Yes	/ 9% No /	68% n/a		14
If yes, volume?													
a) Benefit calculator in non-secure area?	n/a			461,913	66,157	23,700	141,076	5	605,176	66,157	8,323	124,987	23
b) Benefit calculator in secure area not linked to member data?	n/a			28,268	22,577	1,940	17,595	3	29,141	16,859	1,940	16,716	6

Survey Question	Y	our Respons	e		Pe	ers 2015				All Par	ticipants 2	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) Benefit calculator in secure area linked to member's salary and	15 500			620.002	46 702	0.556	161 002	11	1 000 017	67 227	4 507	162.066	4.5
service data? d) Service credit purchase calculator?	15,598			639,983	•	9,556	•		1,089,017	•	4,597	162,066	45
e) Register for 1-on-1 counseling sessions?	7,202			639,983		905	96,394		639,983	•	656	40,517	26
f) Register for presentations?	n/a			3,360	2,216	195	1,741		· '	1,181	34	2,078	14
g) Live chat?	n/a			9,450	3,505	385	4,277		20,901	4,152	0	5,231	25
h) Change address?	n/a			n/a	n/a	n/a	n/a		533	533	533	533	1
	4,635			23,966	4,755	425	7,712		73,008	5,336	425	12,135	32
i) Change beneficiary?	n/a			39,158	17,161	2,607	19,022		228,609	•	296	23,854	19
j) Change email address?	4,312			60,800	13,831	603	19,940		88,189		50	16,038	28
k) Reset password?	63,028			159,961	27,331	7,189	42,854	9	209,123	24,575	50	42,582	25
I) Change banking information for direct deposit?	1,259			3,639	1,259	412	1,619	7	153,930	1,681	170	12,034	20
m) Change tax withholding amount?	1,021			7,429	1,342	218	2,613	10	117,161	3,014	218	8,911	25
n) Download or print duplicate tax receipts? [i.e., 1099s in the U.S.]	Unknown			57,665	5,121	3,228	13,754	7	72,825	5,886	350	14,846	27
o) View pension payment details? [i.e., gross amounts, deductions]	Unknown			259,095	28.562	5,605	58,889	11	910,898	19.084	123	78,812	35
p) Submit a retirement application?	n/a			6,826	5,429	294	4,183		6,826	3,210	294	3,253	6
q) View status of online retirement application?	n/a			53,292	53,292	53,292	53,292		53,292	25,855	2,213	25,539	6
r) Apply for a refund or transfer-out?	n/a			13,233	5,072	91	6,132			4,136	39	7,474	12
s) Secure mailbox or digital file including history of recent	,,, ,			13,233	0,072	0.2	0,101	Ū		.,250		.,	
correspondence and member documents?	n/a			29,284	29,252	29,220	29,252	2	368,962	59,195	2,407	108,431	12
t) Download member statement? [i.e., Adobe format]	10,141			832,646	27,395	10,141	116,804	10	832,646	28,336	71	63,192	35
u) Upload documents (such as birth certificates)?	n/a			563	563	563	563	1	4,224	219	26	1,164	7
v) View pensionable earnings and/or service without downloading?	298,000			1,418,405	91,112	12,004	292,900	10	2,086,795	95,566	2,297	304,309	35
w) If you administer a core DC or hybrid DB/ DC plan:													
w1) Switch between investment options?	n/a			1,643	1,276	908	1,276	2	14,904	1,568	3	4,453	8
w2) Change deferral percentage selections for regular contributions?	′			,	,		,		,	,		,	
	n/a			612	612	612	612	1	3,776	2,907	612	2,432	3
w3) Initiate withdrawals?	n/a			57,475	57,475	57,475	57,475	1	57,475	5,118	2,995	21,863	3
w4) View current valuation of their account?	5,514			362,295	134,285	5,514	167,365	3	989,779	93,454	5,514	239,302	7
<u>Videos</u>													
2 Do you have videos that members can access online?	Yes			85% Yes	/ 15% No /	' 0% n/a		13	81% Yes	/ 19% No	/ 0% n/a		52
If yes:													
a) How many different videos do you have for members online?	36			47	16	1	17	11	163	16	1	19	42
During your most recent fiscal year:													
b) What was the total number of new views for all streamed videos?	14,053			32,782	8 033	Ω./Ι	10,806	O	172,318	5 062	0	16,990	26
I		6 CEM Bend	chmarkin	g Inc.	0,033	84	10,600	9	1/2,318	3,303	U	10,990	36

Survey Question	Yo	ur Respons	e		Pe	ers 2015				All Par	ticipants	2015	
·	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) What was the total number of downloads for all downloadable videos?	n/a			29,186	0	0	7,297	4	29,186	0	0	2,994	11
Activity 2f Mass Communication: (ii) News and Targeted Communication													
83 What % of email addresses do you have in your system for the following	g												
groups: a) Active members?	16.0%			83.0%	45.0%	10.0%	46.4%	13	100.0%	43.8%	0.0%	44.0%	48
b) Inactive members?	Unknown			60.1%	28.0%	5.0%	27.4%		60.1%	16.0%	0.0%	19.5%	45
c) Annuitants?	32.3%			74.3%	38.0%	22.5%	42.0%		91.0%	31.5%	0.0%	31.6%	47
Indicate whether you sent newsletters or news magazines (in either electronic or paper format) last year to any of the following member segments, and if yes, the number of times it was sent and the approximate % sent electronically. Only indicate 'yes' if the newsletter was customized for and only sent to members in the segment:													
Target segment													
a) All members (active, inactive and annuitants)?	Yes			31% Yes	/ 69% No /	/ 0% n/a		13	33% Yes	/ 67% No	/ 0% n/a		52
b) Active and inactive members?	No			15% Yes	/ 85% No /	/ 0% n/a		13	10% Yes	/ 90% No	/ 0% n/a		51
c) Active members and annuitants?	No			0% Yes /	100% No /	/ 0% n/a		13	4% Yes /	/ 96% No /	0% n/a		51
d) Active members only?	No			62% Yes	/ 38% No /	/ 0% n/a		13	62% Yes	/ 38% No	/ 0% n/a		52
e) Inactive members only?	No			15% Yes	/ 85% No /	/ 0% n/a		13	15% Yes	/ 83% No	/ 2% n/a		51
f) Annuitants only?	No			77% Yes	/ 23% No /	/ 0% n/a		13	77% Yes	/ 21% No	/ 2% n/a		51
g) Age segments (i.e., under 35, 35-50, 50 plus)?	No			15% Yes	/ 85% No /	/ 0% n/a		13	12% Yes	/ 87% No	/ 2% n/a		51
h) Women only or men only?	No			0% Yes /	100% No /	/ 0% n/a		13	2% Yes /	/ 96% No /	2% n/a		51
i) Employer or employment category (i.e., a different newsletter for													
teachers vs. bus drivers)?	No			23% Yes	/ 77% No /	/ 0% n/a				/ 87% No			51
j) Other? (describe your other newsletter segments below)	No			23% Yes	/ 77% No /	/ 0% n/a		13	13% Yes	s / 81% No	/ 6% n/a		49
<u>n/a</u>													
If yes: # of times you sent last year?													
a) All members (active, inactive and annuitants)?	6			6	4	1	4	4	23	4	1	8	17
b) Active and inactive members?	n/a			2	2	1	2	2	3	2	1	2	5
c) Active members and annuitants?	n/a			n/a	n/a	n/a	n/a	0	3	2	1	2	2
d) Active members only?	n/a			8	3	1	4	8	20	3	1	5	32
e) Inactive members only?	n/a			4	3	2	3	2	15	1	1	3	8
f) Annuitants only?	n/a			4	3	2	3	10	15	2	1	3	40
g) Age segments (i.e., under 35, 35-50, 50 plus)?	n/a			8	5	2	5	2	15	5	2	7	6
h) Women only or men only?	n/a			n/a	n/a	n/a	n/a	0	1	1	1	1	1

Survey Question	Y	our Respons	e		Pe	ers 2015				All Part	icipants 2	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
i) Employer or employment category (i.e., a different newsletter for	n/a			23	6	4	11	2	23	6	4	10	5
teachers vs. bus drivers)? j) Other? (describe your other newsletter segments below)	n/a			16	11	2	10		16	8	2	9	6
Approx. % sent by email	1.74					-	10	3		Ü	_	J	
a) All members (active, inactive and annuitants)?	100.0%			100.0%	64.6%	0.0%	57.3%	1	100.0%	65.0%	0.0%	57.8%	17
b) Active and inactive members?	n/a			100.0%		0.0%	50.0%		100.0%		0.0%	34.0%	5
c) Active members and annuitants?	n/a			n/a	n/a	0.0 <i>7</i> 6 n/a	n/a		1.0%	0.5%	0.0%	0.5%	2
d) Active members only?	n/a			100.0%	0.0%	0.0%	31.3%		100.0%	57.0%	0.0%	54.1%	32
e) Inactive members only?	'.			0.0%	0.0%					0.0%			8
f) Annuitants only?	n/a					0.0%	0.0%		80.0%		0.0%	15.8%	
g) Age segments (i.e., under 35, 35-50, 50 plus)?	n/a			50.0%	0.0%	0.0%	10.0%		100.0%		0.0%	20.2%	40
h) Women only or men only?	n/a			100.0%	50.0%	0.0%	50.0%		100.0%		0.0%	53.0%	6
	n/a			n/a	n/a	n/a	n/a	0	100.0%	100.0%	100.0%	100.0%	1
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	n/a			100.0%	100.0%	0.0%	66.7%	3	100.0%	100.0%	0.0%	83.3%	6
j) Other? (describe your other newsletter segments below)	n/a				100.0%		96.7%			100.0%		81.8%	5
85 Are new members issued a 'welcome' kit describing their benefits?	17.5												_
Are new members issued a welcome kit describing their benefits:	Yes			92% Yes	/ 8% No /	0% n/a		13	92% Yes	/ 8% No / (0% n/a		52
a) If yes, does it include a personalized letter addressing the new													
member by name?	Yes			54% Yes	/ 38% No ,	/ 8% n/a		12	75% Yes	/ 17% No /	′ 8% n/a		48
86 Do you send your members a general brochure with a summary of the													
benefits every year in either paper or email format?	No			23% Yes	/ 77% No ,	/ 0% n/a		13	23% Yes	/ 77% No /	′ 0% n/a		52
87 Do you automatically send targeted letters or emails addressed to													
members by name triggered by the following milestones:													
a) Vested for pension benefits (if member is not vested immediately)?	No			31% Ves	/ 62% No	/ 8% n/a		12	30% Ves	/ 59% No /	/ 11% n/a		39
b) Vested for disability benefits (if member is not vested immediately)?				31/0103	7 0270 110 7	0701174		12	3070 103	7 3370 140 7	11/011/4		33
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	No			31% Yes	/ 62% No	/ 8% n/a		12	14% Yes	/ 70% No /	′ 16% n/a		37
c) Expiration of disability benefits for inactive members or members													
that have exited employment?	No				/ 62% No ,	•				/ 59% No /	•		38
d) Approaching eligibility, or becoming eligible, for retirement?	No			23% Yes	/ 77% No ,	/ 0% n/a				/ 48% No /	-		52
e) Eligibility or likely eligibility, to purchase service credit?	No			15% Yes	/ 85% No ,	/ 0% n/a		13	27% Yes	/ 68% No /	′ 5% n/a		42
f) Missing beneficiary?	No			15% Yes	/ 85% No ,	/ 0% n/a		13	23% Yes	/ 75% No /	′ 2% n/a		43
g) Missing email address?	No			0% Yes /	100% No	/ 0% n/a		13	13% Yes	/ 87% No /	′ 0% n/a		52
h) Never visited the secure member area?	No			15% Yes	/ 85% No ,	/ 0% n/a		13	10% Yes	/ 88% No /	′ 2% n/a		51
i) Other milestone communication? (describe below)	No			62% Yes	/ 38% No	/ 0% n/a		13	71% Yes	/ 25% No /	′ 4% n/a		50
n/a													

Sur	vey Question	Υ	our Respons	e		Pe	ers 2015				All Par	ticipants	2015	
Ju.	10, Question	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
88	Do you actively solicit member feedback on your publications through:													
	a) Focus groups?	No			38% Yes	/ 62% No ,	/ 0% n/a		13	37% Yes	6 / 63% No	/ 0% n/a		52
	b) Tear out surveys or feedback cards in the publications themselves?	No			15% Yes	/ 85% No /	/ 0% n/a		13	15% Yes	s / 85% No	/ 0% n/a		52
	c) Surveys sent to members who request a publication?	No				92% No /	-				s / 87% No	•		52
	d) Other (describe)?	n/a				/ 62% No /	•				s / 40% No			50
	<u>n/a</u>					, ,	,				,	, ,.		
89	Do you publish any of the following materials in a language other than English (or other than French in Quebec and France), or in Braille:													
	a) Member statements?	Yes			8% Ves /	92% No /	0% n/a		13	23% Ves	s / 77% No	/ 0% n/a		52
	b) Annual report?	Yes				92% No /	•				s / 69% No	•		52
	c) Newsletters?	Yes				92% No /	•				s / 77% No	•		52
	d) Website?	Yes				/ 69% No /	•				s / 63% No			52
	e) Brochures and pamphlets?	Yes				/ 85% No /	•		13		, s / 60% No			52
	Activity 2f Mass Communication: (iii) Member Statement													
90	How many times per year (annually = 1, every 2nd year = 0.5, every 3 years = 0.33, every 5 years = 0.2) do you send member statements to:													
	a) Active members?	1			5	1	1	1	13	5	1	0	1	52
	b) Inactive members?	1			5	1	0	1	13		1	0	1	52
91	Approximately what % of members complain about the accuracy of data in their member statements?	2.0%			2.0%	0.5%	0.0%	0.6%	13	2.0%	0.1%	0.0%	0.5%	52
92	Indicate the approximate percentage breakdown of how you send member statements to active members:													
	a) Directed through the employer?	0.0%			99.0%	0.0%	0.0%	7.6%		100.0%		0.0%	8.5%	50
	b) Mailed directly to members' homes?	0.0%			100.0%	100.0%	0.0%	66.8%	13	100.0%	97.0%	0.0%	74.6%	50
	c) Email or text message to members that the statement is available in the secure member area?	0.0%			100.0%	0.0%	0.0%	23.5%	12	100.0%	3.0%	0.0%	21.2%	48
93	On average, how current is an active member's data in the statements that the member receives (in months)? [For example, if statements with data current to December 31st are mailed in a staggered mailing beginning May 1st and finishing June 30th, then the members are receiving data that is between 4 and 6	2			5	2	0	2	13	6	3	0	3	51
94	months old, or 5 months old on average.] Do your statements for active members include:													
	a) Total accumulated service credit?	Yes			100% 1/2	s / 0% No /	/ 00/ 2/2		12	000/ Vac	s / 8% No /	10/ n/a		50
	a, . sta. assumated service or cale.	1123			100% 16	3 / U% NO /	∪70 H/d		13	00% 185	0 / 070 INU /	470 II/d		30

Sur	vey Question	Y	our Respons	ie .		Po	eers 2015				All Par	ticipants	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	b) Pensionable earnings?	Yes			92% Ye	s / 8% No /	′ 0% n/a		13	90% Yes	/ 8% No /	2% n/a		51
	c) A historical summary of salary and service credit earned each year?	No			46% Yes	s / 54% No	/ 0% n/a		13	29% Yes	/ 69% No	/ 2% n/a		51
	d) The refund value if you left at the statement date?	Yes			100% Y	es / 0% No	/ 0% n/a		13	60% Yes	/ 37% No	/ 4% n/a		50
	e) An estimate of the future pension entitlement based on age scenario modeling or assuming the member continues to work until earliest possible retirement? New Media and Other	Yes			85% Yes	s / 15% No	/ 0% n/a		13	88% Yes	/ 10% No	/ 2% n/a		51
OF	Do you have a Facebook site?													
95	· ·	Yes			62% Ye	s / 38% No	/ 0% n/a		13	54% Yes	/ 46% No	/ 0% n/a		52
	If yes:											_		
	a) How often do you update your site?	Daily			250	151	1	145		250	52	1	133	28
	b) How many "likes" do you have?	3,607			8,271	1,932	100	2,597	8	30,000	1,932	50	4,628	28
96	Do you have a Twitter account?	Yes			62% Ye	s / 38% No	/ 0% n/a		13	58% Yes	/ 42% No	/ 0% n/a		52
	If yes:													
	a) How many tweets did you post last year?	150			290	149	20	137	8	3,300	162	0	390	30
	b) How many followers do you have?	84			1,187	313	50	464	8	2,799	422	0	731	30
97	Do you have a mobile app?	No			0% Yes	/ 100% No	/ 0% n/a		13	8% Yes /	92% No /	0% n/a		52
	a) If yes, does your app contain information that is linked to the member's data?	n/a			0% Yes	/ 0% No / :	100% n/a		0	4% Yes /	′ 4% No / 9)2% n/a		4
98	Do you have a mobile version of your website? [i.e., a version of your website designed specifically for smart phones and tablets]	Yes			69% Yes	s / 31% No	/ 0% n/a		13	48% Yes	/ 52% No	/ 0% n/a		52
	 a) If yes, can members access their own data via the mobile version of your website? Activity 3 Collections and Data Maintenance 	No			38% Yes	s / 31% No	/ 31% n/a		9	23% Yes	/ 25% No	/ 52% n/a		25
99	Number of:													
	a) Employers at the end of your fiscal year?	1,461			2,976	1,006	4	1,031		301,578		1	11,567	52
	b) Employers that joined your system during the fiscal year?	2			20	5	0	7	13	30,127	6	0	1,238	52
	c) Employers that exited your system during the fiscal year?	0			310	4	0	31	13	68,539	3	0	1,821	52
100	How many 'collection points' (i.e., employers, state agencies, departments and/or service providers etc) do you deal with for collecting:													
	a) Member payroll data?	1,237			2,976	835	4	958	13	30,705	610	1	2,271	52
	b) Money (i.e., contributions)?	1,291			2,976	1,006	4	1,019	13	33,474	700	1	2,693	52

Surv	ey Question	\ \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Your Respons	ie .		Pe	ers 2015				All Par	ticipants	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	[Your number of 'collection points' could be less than your number of employers if, for example, some of your payroll data comes from a central agency that processes payroll data from numerous employers and then provides it to you in a consolidated, integrated format.]													
101	How many 'reconciliation points' (i.e., employers, state agencies, departments and/or service providers, etc.) do you deal with when:													
	a) Validating member data?	1,237			2,976	1,006	2	1,061	13	125,000	775	1	4,736	52
	b) Reconciling money issues (i.e., contributions)?	1,291			2,976	1,006	4	1,017	13	125,000	775	1	5,115	52
	[For most systems, the number of 'reconciliation points' will be the same as the number of 'collection points' per question 101 immediately above. But they could be different. For example, MOSERS has 1 primary collection point - the Office of Administration. The Office of Administration does not check to see if employers have sent the correct amount. MOSERS has to go back to the individual payroll offices at each employer to reconcile money problems and validate data.]													
102	What is the breakdown of 'collection points' providing you with payroll data between the following formats and what is the total number of active members covered by each format? a) 100% electronic? [No manual steps required unless there are errors.]						_					_		
	b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.]	1			2,955	450	0	705		32,564	466	0	2,161	52
		1			1,510	0	0	155	13	1,514	0	0	128	52
	c) Computer readable? [i.e., via computer tape or disk]	0			1	0	0	0	13	1,966	0	0	38	52
	d) Paper?	0			21	0	0	4	13	654	0	0	25	52
	Total # of active members a) 100% electronic? [No manual steps required unless there are errors.]	100.8k			206.6k	130.0k	0.0k	116.8k	13	1,253,059	9.0k 137.7	'k 0.0k	24,401.7	k 52
	b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.]	37.8k			133.0k	0.0k	0.0k	22.1k	13	15,805.0k	c 0.0k	0.0k	348.6k	50
	c) Computer readable? [i.e., via computer tape or disk]	0.0k			93.7k	0.0k	0.0k	7.4k		1,103.3k		0.0k	25.4k	49
	d) Paper?	0.0k			0.1k	0.0k	0.0k	0.0k		10.0k	0.0k	0.0k	0.5k	49
103	How many warrants of execution or court orders did you obtain against delinquent employers?	0			5	0	0	1	13	31,096	0	0	881	52
104	What % of your active and inactive member on-line records are complete and accurate?	Unknowr	1		99.9%	98.0%	66.0%	92.5%	13	100.0%	96.5%	56.0%	94.0%	52

Surv	vey Question	Yo	our Respons	ie		Pe	ers 2015				All Par	ticipants 2	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	[For example, you don't have to double check paper records or check													
	non-recent data with employers prior to incepting a pension. On-line													
	data may be inaccurate because of poor collection processes, or poor													
	transfer of paper records in the past, or merging in new employers with													
107	bad data, etc.]													
105	Do you actively keep track of the addresses of inactive members?	Yes			85% Yes	/ 15% No	/ 0% n/a		13	73% Yes	/ 27% No	/ 0% n/a		52
106	Do you have a diagnostic software system for detecting and correcting contribution errors?	Yes			100% Ye	s / 0% No	/ 0% n/a		13	87% Yes	/ 13% No	/ 0% n/a		52
107	When you get an address change, how many systems do you need to													
	update?	2			2	1	1	1	13	6	1	1	1	52
	Activity 3b - Service to Employers													
108	Number of:													
	a) Incoming calls from employers?	42,128			74,856	9,398	1	19,574	13	78,000	8,851	0	14,427	52
	b) Email queries from employers?	11,200			113,820	7,000	293	16,331	13	240,599	7,787	0	21,102	52
	c) Conferences for employers (conferences must span more than half a													
	day and typically involve multiple presentations)? [For example, some													
	administrators with multiple employers host an annual conference to													
	update the employers on trends, regulation, legislation, and new													
	services that might affect their pension plan].				20	•	•		4.0	4.047	•	•	40	
	<u></u>	0			30	0	0	4	13	1,917	0	0	43	52
	d) Presentations given to employers such as orientation workshops or													
	seminars on benefit changes, etc. (do not include presentations given at	24			92	23	0	27	12	547	20	0	43	52
	conferences)?	24			92	25	U	21	13	347	20	U	43	52
	e) On-site reviews (or audits or inspections) of your employers? [For example, several systems perform reviews of their employers that have													
	problems providing data and or contributions on a timely basis to													
	ensure that they are correctly fulfilling their obligations to their													
	members.]	97			624	49	0	94	13	5,503	1	0	256	52
	f) Other site visits to employers (exclude 'd' and 'e' above)?	24			28	3	0	7	13	3,573	4	0	209	52
109	Do you have an employer targeted section on your website or a													
	separate website for your employers? [Do not include PDF documents.]													
		Yes			92% Yes	/ 8% No /	0% n/a		13	87% Yes	/ 12% No	/ 2% n/a		51
110	Do you have online videos targeted for employers?	Yes			77% Yes	/ 23% No	/ 0% n/a		13	52% Yes	/ 46% No	/ 2% n/a		51
111	How many different types of presentations did you give to employers?	3			10	4	0	5	13	20	5	0	5	52
	Describe the topic for each different presentation type given to													
	employers below:													
	<u>Sick Leave</u>													

Survey Question	Y	our Respon	ise		P	eers 2015				All Par	ticipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
New Agency													
Pension Spiking													
<u>n/a</u>													
n/a													
<u>n/a</u>													
<u>n/a</u>													
n/a													
n/a													
n/a													
112 Do you have a newsletter dedicated to employers that is different from	า												
the newsletter for members?	Yes			92% Yes	/ 8% No /	′ 0% n/a		13	75% Yes	/ 23% No	/ 2% n/a		51
a) If yes, how many times did you prepare and send an employer				24		2	0	12	co	11	0	13	20
dedicated newsletter last year?	2			24	6	2	8	12	69	11	0	12	39
113 Do you have Service Level agreements with your employers that													
clarifies both your and the employer's service responsibilities and includes measurement and reporting vis-à-vis your responsibilities?													
includes measurement and reporting vis a vis your responsibilities:	No			23% Yes	/ 77% No	/ 0% n/a		13	25% Yes	/ 73% No	/ 2% n/a		51
114 Do you offer and maintain generalized reporting software for your													
employer collection points?	Yes			92% Yes	/ 8% No /	′ 0% n/a		13	87% Yes	/ 12% No	/ 2% n/a		51
If yes:													
a) Is the application web-based? [i.e., you connect to it through a web	Yes			029/ Voc	/ 0% No /	/ 00/ n/a		12	83% Yes	/ 49/ No /	120/ n/a		45
browser] b) Can the software integrate both data collection and billing?	Yes				/ 23% No	•					/ 13% n/a		45
c) Can it provide real-time error checking and feedback versus data	163			09% 165	/ 25% NO	/ 0% II/ d		12	54% Tes	/ 33% NU	/ 13% II/a		43
previously submitted by the employer? [For example, can it identify an													
unusual increase in an employee's salary?]	Yes			62% Yes	/ 31% No	/ 8% n/a		12	54% Yes	/ 33% No	/ 13% n/a		45
115 Do you maintain customized reporting software for any of your													
employer collection points? [For example, you may maintain						1001		4.0					
customized reporting software for your largest employer.]	No			31% Yes	/ 62% No	/ 8% n/a		12	29% Yes	/ 67% No	/ 4% n/a		50
Activity 4 - Governance and Financial Control													
116 Indicate the oversight bodies that you reported to last year, and the													
number of meetings, excluding investment related meetings, that you													
participated in: a) Board of Trustees?	V			020/)/	/ 00/ NI-	100/ - /-		12	070/)/	/ 420/ NI-	100/ - 1-		
b) Non-board legislative oversight committee?	Yes				/ 8% No /				87% Yes				52 52
c) Advisory committee?	Yes				/ 23% No				58% Yes				52
d) Members' Council?	Yes				/ 54% No				33% Yes				50
	No				85% No /				21% Yes				50
e) Other (describe below)?	Yes © 201	6 CEM Ber	nchmarkin		/ 62% No	/ 8% n/a		12	52% Yes	/ 44% No	/ 4% n/a		50

Surv	rey Question	Y	our Respons	е		Pe	ers 2015				All Par	ticipants 2	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	<u>Disability/Appeals Committees</u>													
	# of meetings, including sub-committees, last year													
	a) Board of Trustees?	17			36	26	6	23	12	94	24	0	25	45
	b) Non-board legislative oversight committee?	10			26	7	1	9	10	39	6	0	9	30
	c) Advisory committee?	1			10	2	0	3	5	20	4	0	6	17
	d) Members' Council?	n/a			8	8	8	8	1	15	4	0	5	11
	e) Other (describe below)?	24			24	4	2	8	4	85	8	0	13	27
117	Do you have back-up equipment and premises arranged for your													\neg
	operations if substantial damage occurs at your principal location?													
		Yes			100% Ye	es / 0% No	/ 0% n/a		13	100%	/es / 0% No	/ 0% n/a		52
118	Do you have an independent auditor that reviews and tests the disaster	No			F 40/ V/22	/ 4C0/ No	/ 00/ /-		12	C00/ V/	/ 400/ N-	100/ - /-		
_	recovery plan?	No			54% Yes	/ 46% No	/ 0% n/a		13	60% Y6	es / 40% No	/ U% N/a		52
119	If your principal location became inoperable due to some disaster (such													
	as fire, tornado, etc), how long would it take, in business days, for you to:													
	a) Continue paying pension payments to retirees?	10			10	2	0	2	13	10	1	0	2	52
	b) Begin doing new pension inceptions at normal volumes?	20			30	3	1	6	13	43	3	0	8	52
	c) Collect data and money from employers?	20			20	3	0	5	12	43	2	0	5	51
	d) Respond to member calls at close to current service levels?	5			30	3	1	6	13	43	3	0	5	52
120	Did you have any material legislative changes or other unusual events													\neg
	that materially affected your costs and/ or service in the most recent													
	fiscal year?	Yes			54% Yes	/ 46% No	/ 0% n/a		13	42% Ye	es / 58% No	/ 0% n/a		52
	a) If yes, describe:													
	HB62 - cessation of participation by employers													
	Satisfaction													
121	Did you do any satisfaction surveying in your most recently ended fiscal													\neg
	year?	Yes			100% Ye	es / 0% No	/ 0% n/a		13	96% Y	es / 4% No /	0% n/a		52
	If yes, complete the table below for each activity that you surveyed.													
	1-on-1 counseling													
	a) Did you survey satisfaction regarding this activity in your most													
	recently ended fiscal year?	Yes			77% Yes	/ 23% No	/ 0% n/a		13	65% Ye	es / 25% No	/ 10% n/a		47
	b) Did the survey focus primarily on this single activity? (versus													
	including other activities)	No			62% Yes	/ 15% No	/ 23% n/a		10	56% Ye	es / 10% No	/ 35% n/a		34
	c) What was the longest possible time in days between the activity and	7			30	1	0	5	10	365	2	0	22	34
	the survey? d) Is the survey delayed by at least 1 day from the date of the session?	 				1	U	J	10	303	4	U	44	34
	a, is and the region of at least 2 day from the date of the session.	Yes	C 05145		31% Yes	/ 46% No	/ 23% n/a		10	29% Y	es / 37% No	/ 35% n/a		34
		© 201	6 CEM Bend	nmarkin	g Inc.									

Survey Question	Y	our Respons	e		P	eers 2015				All Par	ticipants 2	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
e) How often did you survey about the activity?	Weekly			250	250	52	230	10	250	250	1	197	34
f) Can you break down the survey results by service agent?	No			62% Ye	s / 15% No	/ 23% n/a		10	44% Ye	s / 21% No	/ 35% n/a		34
g) Can you break down the survey results by topic covered?	No			15% Ye:	s / 62% No	/ 23% n/a		10	37% Ye	s / 29% No	/ 35% n/a		34
Member presentations													
a) Did you survey satisfaction regarding this activity in your most													
recently ended fiscal year?	Yes			100% Y	es / 0% No	/ 0% n/a		13	90% Ye	s / 2% No /	8% n/a		48
b) Did the survey focus primarily on this single activity? (versus	No			029/ Vo	s / 8% No /	/ 00/ n/a		12	020/ Va	s / 8% No /	100/ n/a		47
including other activities) c) What was the longest possible time in days between the activity and	INO			92/016	5 / 6% NU /	0 % 11/ a		13	65% TE	5 / 6% NU /	10% II/a		47
the survey?	0			14	0	0	1	13	365	1	0	24	47
d) Is the survey delayed by at least 1 day from the date of the session?													
	Yes			38% Ye	s / 62% No	/ 0% n/a		13	35% Ye	s / 56% No	/ 10% n/a		47
e) How often did you survey about the activity?	Weekly			250	250	14	217	13	250	250	1	201	47
f) Can you break down the survey results by service agent?	Yes			92% Ye	s / 8% No ,	/ 0% n/a		13	77% Ye	s / 13% No	/ 10% n/a		47
Member telephone calls													
a) Did you survey satisfaction regarding this activity in your most													
recently ended fiscal year?	No			54% Ye	s / 46% No	/ 0% n/a		13	71% Ye	s / 25% No	/ 4% n/a		50
b) Did the survey focus primarily on this single activity? (versus	n/a			16% Vo	s / 8% No ,	/ 16% n/a		7	5/1% Vo	s / 17% No	/ 20% n/a		37
including other activities) c) What was the longest possible time in days between the activity and	liy a			40/016	5 / 6 /0 INU /	40% II/a		,	J4/0 1C	3 / 17 /0 INU	/ 23/0 II/a		37
the survey?	n/a			364	0	0	55	7	365	7	0	60	37
d) Is the survey delayed by at least 1 day from the date of the session?													
	n/a			23% Ye	s / 31% No	/ 46% n/a		7	42% Ye	s / 29% No	/ 29% n/a		37
e) How often did you survey about the activity?	n/a			250	250	1	214	7	250	52	1	120	37
f) Can you break down the survey results by service agent?	n/a			38% Ye	s / 15% No	/ 46% n/a		7	38% Ye	s / 33% No	/ 29% n/a		37
g) Can you break down the survey results by topic covered?	n/a			15% Yes	s / 38% No	/ 46% n/a		7	37% Ye	s / 35% No	/ 29% n/a		37
Pension inceptions													
a) Did you survey satisfaction regarding this activity in your most													
recently ended fiscal year?	No			69% Ye	s / 31% No	/ 0% n/a		13	60% Ye	s / 35% No	/ 6% n/a		49
b) Did the survey focus primarily on this single activity? (versus				500(1)	/ 00/ 11	1010/ /		0		/ 450/ 11	1.400/ /		24
including other activities)	n/a			69% Yes	s / 0% No ,	/ 31% n/a		9	44% Ye	s / 15% No	/ 40% n/a		31
c) What was the longest possible time in days between the activity and the survey?	n/a			365	10	0	62	9	365	30	0	56	31
e) How often did you survey about the activity?	n/a			250	12	1	115	9	250	12	1	71	31
Written benefit estimates													
a) Did you survey satisfaction regarding this activity in your most													
recently ended fiscal year?	No			38% Yes	s / 62% No	/ 0% n/a		13	50% Ye	s / 44% No	/ 6% n/a		49
b) Did the survey focus primarily on this single activity? (versus													
including other activities)	n/a			38% Ye	s / 0% No ,	/ 62% n/a		5	35% Ye	s / 15% No	/ 50% n/a		26

rvey Question	\ \ \	our Respons	e		Pe	ers 2015				All Par	ticipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) What was the longest possible time in days between the activity and							_	_					
the survey?	n/a			30	1	0	7		365	30	0	54	26
e) How often did you survey about the activity?	n/a			250	250	12	202	5	250	12	1	84	26
Website - secure member area													
a) Did you survey satisfaction regarding this activity in your most													
recently ended fiscal year?	No			23% Yes	s / 77% No	/ 0% n/a		13	50% Yes	s / 44% No	/ 6% n/a		49
b) Did the survey focus primarily on this single activity? (versus													
including other activities)	n/a			15% Yes	s / 8% No /	77% n/a		3	31% Yes	s / 19% No	/ 50% n/a		26
c) What was the longest possible time in days between the activity and				20	0	0	40	2	265	20	0	70	2
the survey?	n/a			30	0	0	10		365	30	0	78	26
e) How often did you survey about the activity?	n/a			250	250	250	250	3	250	8	1	82	26
g) Can you break down the survey results by topic covered?	n/a			15% Yes	s / 8% No /	77% n/a		3	33% Yes	s / 17% No	/ 50% n/a		26
Refunds, lump-sums & transfers-out													
a) Did you survey satisfaction regarding this activity in your most													
recently ended fiscal year?	No			23% Yes	s / 77% No	/ 0% n/a		13	37% Yes	s / 58% No	/ 6% n/a		49
b) Did the survey focus primarily on this single activity? (versus													
including other activities)	n/a			23% Yes	s / 0% No /	77% n/a		3	25% Yes	s / 12% No	/ 63% n/a		19
c) What was the longest possible time in days between the activity and													
the survey?	n/a			30	30	0	20	3	365	30	0	74	19
e) How often did you survey about the activity?	n/a			250	250	12	171	3	250	12	1	50	19
Purchases & transfers-in													
a) Did you survey satisfaction regarding this activity in your most													
recently ended fiscal year?	No			38% Yes	s / 62% No	/ 0% n/a		13	42% Yes	s / 50% No	/ 8% n/a		48
b) Did the survey focus primarily on this single activity? (versus													
including other activities)	n/a			38% Yes	s / 0% No /	62% n/a		5	31% Yes	s / 12% No	/ 58% n/a		22
c) What was the longest possible time in days between the activity and													
the survey?	n/a			30	15	0	15	5	365	30	0	63	22
e) How often did you survey about the activity?	n/a			250	250	12	158	5	250	12	1	65	22
Disability													
a) Did you survey satisfaction regarding this activity in your most													
recently ended fiscal year?	No			54% Yes	s / 46% No	/ 0% n/a		13	32% Yes	s / 50% No	/ 18% n/a		36
b) Did the survey focus primarily on this single activity? (versus													
including other activities)	n/a			38% Yes	s / 15% No	/ 46% n/a		7	18% Yes	s / 14% No	/ 68% n/a		14
c) What was the longest possible time in days between the activity and	,				_	_		_					
the survey?	n/a			364	7	0	64		365	30	0	83	14
e) How often did you survey about the activity?	n/a			250	250	1	148	7	250	19	1	112	14
Service to employers													
a) Did you survey satisfaction regarding this activity in your most													
recently ended fiscal year?	No			54% Yes	s / 46% No	/ 0% n/a		13	63% Yes	s / 31% No	/ 6% n/a		49

Sur	vey Question	Y	our Respons	е		Po	eers 2015				All Par	ticipants	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	e) How often did you survey about the activity?	n/a			250	1	1	37	7	250	2	1	56	33
122	If you surveyed satisfaction regarding the secure member area on your													
	website, was the survey electronic? [i.e., email or web based]	Vaa			240/ 1/	/ 220/ N-	1.460/ - 1-		_	250/ \/-	- / 270/ N-	1200/ - /-		32
	If yes:	Yes			31% Yes	/ 23% NO	/ 46% n/a		7	35% Ye	s / 27% No	/ 38% N/a		32
	a) Was the survey a menu item that the user had to find and select (as													
	opposed to a survey actively sent to the user via email or a pop up)?													
		No			8% Yes /	23% No /	69% n/a		4	12% Ye	s / 23% No	/ 65% n/a		18
	b) Did you survey 100% of users (versus a sample such as every 100th	Yes			23% Ves	/ 8% No /	69% n/a		4	21% Ve	s / 13% No	/ 65% n/a		18
	user)? If yes:	103			25/0103	7 070 140 7	037011/4			21/010	37 1370140	, 03/011/4		10
	b1) Do you survey all visitors (meaning the same unique user can be													
	surveyed multiple times)?	No			15% Yes	/ 8% No /	77% n/a		3	17% Ye	s / 4% No /	79% n/a		11
	Plan Design													
	Plan Characteristics													
123	Indicate 'yes' if your employers/ member groups can be described as													
	the following (indicate all that apply):													
	a) Is your membership limited to a city or county?	No			15% Yes	/ 85% No	/ 0% n/a		13	7% Yes	/ 93% No /	0% n/a		44
	b) Participating Local Employers (i.e., municipalities have a choice in participating in your plan)?	Yes			54% Yes	/ 46% No	/ 0% n/a		13	55% Ye	s / 45% No	/ 0% n/a		44
	c) State, Province, Country?	Yes				/ 54% No					s / 25% No			44
	d) Teachers?	No				/ 31% No					s / 45% No	•		44
	e) School Employees (Custodians, Admin. Staff)?	Yes			77% Yes	/ 23% No	/ 0% n/a		13	68% Ye	s / 32% No	/ 0% n/a		44
	f) Safety (Police, Fire, Sheriff's Dept, etc) ?	Yes			54% Yes	/ 46% No	/ 0% n/a		13	59% Ye	s / 41% No	/ 0% n/a		44
	g) Other (Judges, Legislators, etc)?	Yes			54% Yes	/ 46% No	/ 0% n/a		13	59% Ye	s / 41% No	/ 0% n/a		44
	h) Corporate?	Yes			8% Yes /	92% No /	0% n/a		13	9% Yes	/ 91% No /	0% n/a		44
	i) Industry?	No			0% Yes /	′ 100% No	/ 0% n/a		13	11% Ye	s / 89% No	/ 0% n/a		44
	i1) If Industry, describe the industry:													
	n/a													
124	Which of the following descriptions best describes the non-optional													
	benefit plans that you administer for each of your member groups:													
	A plan is non-optional if members must participate in it, or choose													
	between it and alternatives. Do not include membership in benefit													
	plans that are supplemental and optional such as deferred													
	compensation 457, 403B or 401(k) plans. Do not include plans													
	administered by a 3rd party. a) Traditional Defined Benefit ("DB")?	Yes			92% Vec	/ 8% No /	0% n/a		13	88% Va	s / 12% No	/ 0% n/a		52
		1.03			J2/0 163	, 070 INO /	070 11/ a		13	00/0 TE	3 / 12/0 INU	, 070 H/a		32

Sur	rey Question	Yo	our Response	<u>;</u>		Pe	ers 2015				All Part	ticipants 2	015	
	<u> </u>	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	b) DB Cash Balance (aka Money Purchase)?	Yes			23% Yes /	69% No	/ 8% n/a		12	8% Yes /	90% No /	2% n/a		51
	c) Hybrid DB/ DC Cash Balance?	Yes			8% Yes /	85% No /	8% n/a		12	4% Yes /	94% No /	2% n/a		51
	d) Hybrid DB/ Money Match?	No			8% Yes /	35% No /	8% n/a		12	2% Yes /	95% No /	2% n/a		43
	e) DROP savings?	No			8% Yes /	85% No /	8% n/a		12	9% Yes /	89% No /	2% n/a		43
	f) Defined Contribution ("DC")?	No			23% Yes /	69% No	/ 8% n/a		12	13% Yes /	/ 85% No ,	/ 2% n/a		51
	g) Hybrid DB/ DC?	No			31% Yes /	62% No	/ 8% n/a		12	27% Yes ,	71% No	/ 2% n/a		51
	h) Other (describe)?	No			0% Yes /	92% No /	8% n/a		12	10% Yes ,	/ 85% No ,	/ 6% n/a		49
	<u>n/a</u>													
125	Do members in any of your defined benefit plan(s) have the option of								T					
	electing: [These questions are not applicable for DC plans or the DC													
	portion of hybrid DB/DC plans] a) A 'variable investment option' that can increase or decrease the													
	value of a member's future DB pension depending on the investment													
	performance of a 'variable fund'?	No			8% Yes /	92% No /	0% n/a		13	5% Yes /	95% No /	0% n/a		44
	b) A 'pension savings overlay'? [Some Dutch systems have this option.													
	The additional contributions are converted into an annuity at													
	retirement. Interest is based on a fixed percentage or on the performance of the pension fund.]	No			15% Yes /	85% No	/ 0% n/a		13	9% Yes /	91% No /	0% n/a		44
	c) To change their contribution rate in order to get either more money													
	at retirement or earlier eligibility to retire?	No			8% Yes /	92% No /	0% n/a		13	5% Yes /	95% No /	0% n/a		44
126	Do you have a Highly Compensated Employee replacement benefit													
	program for employees that exceed legal or contractual limits of	Voc			770/ Vos	1220/ No.	100/ 2/2		12	669/ Vos	/ 249/ No	/ 00/ 5/5		44
	maximum pensionable earnings?	Yes			77% Yes /	23% NO	/ U% N/a		13	66% Yes /	34% NO ,	7 0% n/a		44
127	Are any of the following activities administered by a third party:													
	a) DB administration?	No			0% Yes /	100% No	/ 0% n/a		13	15% Yes ,	/ 85% No ,	/ 0% n/a		52
	b) DC administration?	No			23% Yes /	46% No	/ 31% n/a		9	31% Yes /	/ 35% No ,	/ 35% n/a		34
	c) Pensioner data maintenance?	No			0% Yes /	100% No	/ 0% n/a		13	17% Yes /	/ 83% No ,	/ 0% n/a		52
	d) Active member data maintenance?	No			0% Yes /	100% No	/ 0% n/a		13	17% Yes /	/ 83% No ,	/ 0% n/a		52
	e) Contribution collection?	No			8% Yes /	92% No /	0% n/a		13	17% Yes ,	/ 83% No ,	/ 0% n/a		52
	f) Disability decisions?	No			31% Yes /	69% No	/ 0% n/a		13	33% Yes ,	60% No	/ 8% n/a		48
128	Which of the following programs do you offer to members AND								\neg					
	administer yourself? [i.e., design, enrolment, premium collection]													
	a) Pre-retirement health?	No			0% Yes /	100% No	/ 0% n/a		13	9% Yes /	91% No /	0% n/a		44
	b) Post-retirement health?	Yes			46% Yes /	54% No	/ 0% n/a		13	30% Yes /	70% No	/ 0% n/a		44
	c) Pre-retirement dental and vision?	No			0% Yes /	100% No	/ 0% n/a		13	5% Yes /	95% No /	0% n/a		44
	d) Post-retirement dental and vision?	No			38% Yes /					20% Yes /				44
1		1 -			1 2.2.2.207		,,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	/			

e) Long-term care insurance? g) Cotional tax deferred savings plans? [i.e., 457, 403, 401k, 401a, etc.] No 8% Yes / 92% No / 0% n/a 13 9% Yes / 92% No / 0% n/a 13 9% Yes / 91% No / 0% n/a 13 9% Yes / 91% No / 0% n/a 13 9% Yes / 91% No / 0% n/a 13 9% Yes / 91% No / 0% n/a 13 9% Yes / 91% No / 0% n/a 13 9% Yes / 91% No / 0% n/a 13 9% Yes / 91% No / 0% n/a 13 9% Yes / 91% No / 0% n/a 13 00% Yes / 91% No / 0% n/a 13 00% Yes / 91% No / 0% n/a 14 00% Yes / 77% No / 8% n/a 15 Yes / 85% No / 0% n/a 16 Yes / 85% No / 0% n/a 17 Yes / 85% No / 0% n/a 18 00 Dos your board have an organization separate from the plan administrator? [This separate organization may also be responsible for public relations and select administrate duties and projects such as designing communication materials.] No 0% Yes / 100% No / 0% n/a 18 Obes your board have the power on its own to approve your operating budget? (i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] No 90 you make payments to annuitants that are accounted for separately from the normal pension? [For example: 120 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example: 121 So you systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. 122 No you systems permit employers to supplement from the employer and pays it on behalf of the employer. 123 Obes your board have the pensioner during early retirement. These pension are required by the pensioner during early retirement. These contributions to the normal pension or their retireas. The pension fund collects the supplement from the employer and pays it on behalf of the employer.	Sur	vey Question	\ \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	our Respons	e		Pe	ers 2015				All Par	ticipants	2015	
f) Loans to members? g) Optional tax deferred savings plans? [i.e., 457, 403, 401k, 401a, etc.] h) Optional insurance? [i.e., life and/or auto and/or home] h) Optional insurance? [i.e., life and/or auto and/or home] l) Other (describe)? n/a n/a n/a n/a 129 is your organization directly responsible for both investments and pension administratior? load administrator that supports the Board and helps oversee the administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.] No 0		-, -, -, -, -, -, -, -, -, -, -, -, -, -		•		Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
g) Optional tax deferred savings plans? [i.e., 457, 403, 401k, 401a, etc.] No 31% Yes / 69% No / 0% n/a 13 20% Yes / 84% No / 0% n/a i) Other (describe)? n/a n/a n/a n/a 12 Is your organization directly responsible for both investments and pension administration? Personal administration? Does your board have an organization materials.] No 0% Yes / 100% No / 0% n/a 13 20% Yes / 29% No / 0% n/a 13 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] Paving Pension Rules 132 Do you make payments to annuitants that are accounted for separately from the normal pension of their retires. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement. These		e) Long-term care insurance?	No			8% Yes /	92% No / 0	0% n/a		13	9% Yes /	91% No /	0% n/a		44
h) Optional insurance? [i.e., life and/or auto and/or home] No 15% Yes / 85% No / 0% n/a 13 120% Yes / 84% No / 0% n/a 13 16% Yes / 84% No / 0% n/a 13 16% Yes / 85% No / 0% n/a 13 16% Yes / 85% No / 0% n/a 14 16% Yes / 84% No / 0% n/a 15% Yes / 77% No / 8% n/a 12 20% Yes / 75% No / 5% n/a 12 20% Yes / 75% No / 5% n/a 13 10 Does your board have an organization separate from the plan administrator that supports the Board and helps oversee the administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.] No 0 % Yes / 100% No / 0% n/a 13 10 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] Paying Pension Rules 13 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example : • Some systems permit employers to supplement the normal pension of their retires. The pension flud collects the supplement from the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These		f) Loans to members?	No			8% Yes /	92% No / 0	0% n/a		13	9% Yes /	91% No /	0% n/a		44
h) Optional insurance? [i.e., life and/or auto and/or home] i) Other (describe)? n/a n/a n/a n/a 12 Is your organization directly responsible for both investments and pension administrators that supports the Board and helps oversee the administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.] No 0% Yes / 15% No / 0% n/a 13 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] No 54% Yes / 46% No / 0% n/a 13 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example: • Some systems permit employers to supplement the normal pension of their retriezes. The pension flud collects the supplement from the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These		g) Optional tax deferred savings plans? [i.e., 457, 403, 401k, 401a, etc.]													
i) Other (describe)? n/a n/a n/a n/a n/a n/a 12 Is your organization directly responsible for both investments and pension administration? Yes 85% Yes / 15% No / 0% n/a 13 Does your board have an organization separate from the plan administrator that supports the Board and helps oversee the administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.] No Wes / 100% No / 0% n/a 13 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] Paying Pension Rules No 54% Yes / 46% No / 0% n/a 13 52% Yes / 45% No / 2% n/a Yes 69% Yes / 31% No / 0% n/a 13 52% Yes / 45% No / 2% n/a For example: • Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These		h) Outional in command it is life and decrease and decrease and	-					-				•			44
n/a n/a 129 Is your organization directly responsible for both investments and pension administration? 130 Does your board have an organization separate from the plan administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.] 131 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] 132 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example: Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These			-					-				-			44
n/a n/a n/a 129 Is your organization directly responsible for both investments and pension administration? 130 Does your board have an organization separate from the plan administrator that supports the Board and helps oversee the administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.] 131 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] 132 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example: 133 Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. 134 At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These			No			15% Yes	/ 77% No /	′ 8% n/a		12	20% Yes	/ 75% No	/ 5% n/a		42
n/a 129 Is your organization directly responsible for both investments and pension administration? Yes 85% Yes / 15% No / 0% n/a 13 71% Yes / 29% No / 2% n/a 71%		T.													
Second process of the process of t															
pension administration? Yes 85% Yes / 15% No / 0% n/a 130 Does your board have an organization separate from the plan administrator that supports the Board and helps oversee the administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.] No 0% Yes / 100% No / 0% n/a 131 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] No 54% Yes / 46% No / 0% n/a 13 52% Yes / 45% No / 2% n/a Yes 69% Yes / 31% No / 0% n/a 13 52% Yes / 45% No / 2% n/a Yes 69% Yes / 31% No / 0% n/a 14 52% Yes / 45% No / 2% n/a For example: • Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These		<u>n/a</u>													
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administrator that supports the Board and helps oversee the administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.] No 0% Yes / 100% No / 0% n/a 13 21% Yes / 77% No / 2% n/a 131 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] No 54% Yes / 46% No / 0% n/a 13 52% Yes / 45% No / 2% n/a Paving Pension Rules 132 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example: Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These		pension administration?	Yes			85% Yes	/ 15% No /	′ 0% n/a		13	71% Yes	/ 29% No	/ 0% n/a		52
administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.] No 0 0% Yes / 100% No / 0% n/a 13 21% Yes / 77% No / 2% n/a 131 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] Paying Pension Rules 132 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example: Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These	130														
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separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.] No Paying Pension Rules 132 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example: Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These	131	Does your board have the power on its own to approve your operating													
Governor, Minister, General Assembly, etc.] Paying Pension Rules 132 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example: Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These		budget? [i.e., your budget does not also have to be approved by a													
Paying Pension Rules 132 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example: • Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These															
Paying Pension Rules 132 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example : • Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These		Governor, Minister, General Assembly, etc.]	No			54% Yes	/ 46% No /	′ 0% n/a		13	52% Yes	/ 45% No	/ 2% n/a		43
from the normal pension? [For example : • Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These		Paying Pension Rules					,,	•				,	, ,.		
from the normal pension? [For example : • Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These	132	Do you make nayments to annuitants that are accounted for senarately													
 Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These 			Yes			69% Yes	/ 31% No /	′ 0% n/a		13	52% Yes	/ 45% No	/ 2% n/a		43
their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These		[For example :													
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At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These															
pension are required by the pensioner during early retirement. These															
contained to the pensioner me december of the pensioner me december.		, , , ,													
and the member's payment advice shows 2 different payments (the		The state of the s													
pension + the reimbursement) and 1 collection (the required															
contribution).]		contribution).]													
133 Do you:	133	Do you:	-												

Survey Question	Y	our Respons	se		Pe	ers 2015				All Pa	rticipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Check income of non-disabled pensioners? [For most systems this													
does not apply. At a few systems, if a pensioner's income from other													
sources exceeds a certain amount, his/her pension could be stopped or													
reduced.]	No			38% Yes	/ 62% No	/ 0% n/a		13	32% Ye	es / 64% No	o / 5% n/a		42
b) Check income of disabled members after they have started receiving	,					/		4.0					20
disability payments?	Yes			92% Yes	/ 8% No /	0% n/a		13	55% Ye	es / 34% No	o / 11% n/a		39
c) Check school status? [For example, some systems will check that a													
dependent beneficiary is still eligible to receive a survivor pension	Voc			600/ Vos	/ 210/ No	100/ 2/2		12	F70/ V	os / 200/ Na	150/ 5/5		42
benefit.]	Yes			69% Yes	/ 31% No	/ 0% n/a		13	5/% Y	es / 39% No	0 / 5% n/a		42
d) Do proof-of-life checks that require individual annuitants to provide	Yes			100% Va	es / 0% No	/ 0% n/a		12	01% V	es / 7% No	/ 2% n/a		43
affidavits or notarization or similar proof of life? e) Provide written confirmations of pensioner income or member	103			100% 16	37 070 110	/ 070 H/ a		13	31/010	23 / 7/0 140	/ 2/011/a		73
account balances to third-parties? [For example, provide confirmation													
of income or account value for loans or for social security or subsidized	Yes			100% Ye	s / 0% No	/ 0% n/a		13	98% Y	es / 2% No	/ 0% n/a		44
housing, etc.]					, .,	, -,,-				,	, -,,-		
Payment Options													
Do you offer "joint and survivor" options that are:													
a) Reduced to Beneficiary Only? [For example, If the beneficiary dies													
first, then the retiree's pension continues at the same level. However if													
the retiree dies first then the beneficiary receives a reduced pension													
(such as 70% for spouse).1 b) Reduced to Last Survivor? [For example, if either the retiree or	Yes			77% Yes	/ 23% No	/ 0% n/a		13	77% Ye	es / 23% No	o / 0% n/a		44
beneficiary dies the survivor receives a reduced pension (such as 70%,													
etc.).]	No			23% Yes	/ 77% No	/ 0% n/a		13	27% Y	es / 73% No	o / 0% n/a		44
c) "Reversion" or "Pop-up"? [For example, if the beneficiary dies first,													
the retiree's pension increases to an unmodified level. However, if the													
retiree dies first the pension does not increase for the surviving													
beneficiary (and it may decrease).]	Yes			85% Yes	/ 15% No	/ 0% n/a		13	55% Ye	es / 45% No	o / 0% n/a		44
135 How many Joint and Beneficiary or Survivor percentages (i.e., 100%													
Survivor, 50% Survivor, etc.) do you permit? [If you permit any %													
selected by the member, then indicate "unlimited".]	6			18	6	3	8	6	91	3	1	7	30
136 Do any of your retirement formula for members explicitly subtract													
estimated Social Security (or CPP in Canada) when determining the													
benefit?	Yes			46% Yes	/ 54% No	/ 0% n/a		13	52% Y	es / 48% No	o / 0% n/a		44
a) If yes, is this true for all of your members or are some pensions													
reduced to reflect Social Security and others not?	Some			0% All /	46% Some	/ 54% n/a		6	20% A	II / 32% Soi	me / 48% n/	a	23
b) If yes, do you have a "Level Income" option for early retirees that													
pays a higher benefit to members prior to age 65 and then reduces the													
benefit at age 65 when social security (or CPP in Canada) starts to be	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			200():	100/11/1	= 40/ /		_		/ =0/ 1:	1.00/		22
paid?	Yes			38% Yes	/ 8% No /	54% n/a		6	48% Ye	es / 5% No	/ 48% n/a		23

Sur	vey Question	Ye	our Respon	se		Pe	ers 2015				All Pa	rticipants	2015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
137	Do you have "High/ Low" or "Low/High" options that are not tied to social security? [For example, a retiree might want higher payments for 10 years until a mortgage obligation is repaid, followed by lower payments.]	No			0% Yes /	100% No	/ 0% n/a		13	5% Yes	/ 95% No ,	/ 0% n/a		44
138	Do you offer "Annuity Certain" options? [For example, Annuity Certain options provide the annuitant with a monthly benefit for life. If the annuitant dies before a set guarantee period, monthly benefits continue to be paid to a beneficiary for the balance of the guarantee period.]	Yes			62% Yes	/ 38% No	/ 0% n/a		13	57% Ye	s / 43% No	o / 0% n/a		44
139	Do you have a designer option where members can design virtually any actuarially sound cash flow they choose? [Designer options need to be custom priced by an actuary.]	No			15% Yes	/ 85% No	/ 0% n/a		13	9% Yes	/ 91% No ,	/ 0% n/a		44
140	Can a member choose between a COLA protected and a non-COLA pension? [The only example we have seen provides a much higher FAS salary base for the non-COLA pension.]	No			15% Yes	/ 85% No	/ 0% n/a		13	5% Yes	/ 95% No ,	/ 0% n/a		44
141	Do you have a Deferred Retirement Option Plan ("DROP")? [This option allows eligible employees to receive payment of retirement benefits while continuing to work. These payments are usually deposited into a separate account, and the total accumulated value of this account is paid via lump sum to the employee on actual retirement.]	No			8% Yes /	92% No /	0% n/a		13	20% Ye	s / 80% No	o / 0% n/a		44
142	At retirement, can a member convert: a) Part of his benefit into a partial lump sum payment? b) All of his benefit into a lump sum or commuted value payment? [That can be rolled over to another fund, or investment account, etc.]	No			62% Yes	/ 38% No	/ 0% n/a		13	39% Ye	s / 61% No	o / 0% n/a		44
		Yes			15% Yes	/ 85% No	/ 0% n/a		13	20% Ye	s / 80% No	o / 0% n/a		44
143	Are members permitted to retire mid-month (in which case they receive a partial pension payment for the remainder of the month) or are they always assumed to retire on a set day (usually the first or the last day) of the month?	Set Day			38% Any	Day / 62%	% Set Day /	0% n/a	13	34% An	y Day / 66	% Set Day /	′ 0% n/a	44
144	How many mortality tables do you keep track of for determining joint and survivor or beneficiary options? [Most systems track only one table. But some systems calculate joint and survivor pensions using the mortality table that was in effect when the retiring member joined the system. Since mortality tables change from time to time, the result is that these systems are required to track numerous mortality tables.] Cost of Living Adjustments	3			9	2	1	3	13	228	1	1	8	43

Survey Question	Υ	our Respons	e		Pe	ers 2015				All Part	icipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
[Most systems have only one or none. Examples of different COLA rule sets that could apply to various member groups or grandfathered subsets of member groups include: 1. CPI uncapped 2. CPI capped at 2% without a carry forward; 3. CPI capped at 2% with a carry forward]	1			9	2	1	3	13	13	2	0	3	44
b) Conditional COLA based on the level of funding? c) Umbrella legislation that guarantees the purchasing power of an annuitants' pension will not fall below a certain level? [An example of	No Yes No			38% Yes	/ 77% No / / 62% No / / 85% No /	′ 0% n/a		13	20% Yes / 36% Yes / 16% Yes /	64% No /	0% n/a		44 44 44
a) If yes, are these COLA increases the same as they are for annuitants?	Yes No				/ 85% No / 8% No / 8!	•			36% Yes / 25% Yes /				43 16
 How many different rule sets do you have that apply to member groups or subsets of a member group for qualifying for an unreduced retirement formula? [For example, one system has the following 3 rule sets that apply to its member groups and special subsets of its member groups. 1. All public employees can get an unreduced retirement at 65 with 5 years of service, or at 60 with 20 years of service. (Even though there are two qualifying rules, it only counts as 1 rule set because the rules apply equally to all members.) 2. Pre-1995 public employees can get an unreduced retirement at age 55 with 20 years of service. 3. Teachers can get an unreduced retirement when age plus years of service equals 75.] 	18			21	6	2	8	13	91	6	1	9	44
Can members retire earlier than the age required for an unreduced retirement formula? [For example, at one system an unreduced formula of 1.5% per year of service is available beginning at age 60. Members can retire earlier but the pension is reduced by 5% for each year earlier than age 60.]	Yes	6 CEM Benc	hmarkin		s / 0% No /	′ 0% n/a		13	98% Yes /	2% No / 0	% n/a		44

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Survey Question	Y	our Respons	e		Pe	ers 2015				All Part	ticipants 2	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
How many different salary definitions could apply in retirement formula calculations? [Examples of different salary definitions include:	5			15	3	1	5	13	15	3	0	4	44
• Average of 3 final years' salary subject to raises not in excess of 10%;													
 Average of 3 best consecutive years' salary with no cap on raises; Final 12 months salary.] 													
How many different 'formula percentage' rule sets could apply in unreduced retirement formulas? [For example, one system has the following three different 'formula percentage' rule sets: 1. Fire and Police get 2.5% per year of service;	16			16	4	1	6	13	91	4	1	7	44
 2. Public Employees get 1.75% per year of service; 3. Teachers get 1.8% for the first 5 years of service, 2.0% for the next 5 years of service and 2.3% per year of service thereafter.] 													
152 Do you have different employers with different benefit formula?	No			E49/ Voc	/ 46% No	/ 00/ n/a		12	EOW Voc	/ 50% No ,	/ 00/ p/2		44
If yes, which of the following happens when a member moves from one employer that you administer to another with a different benefit formula? [For example, moves from PERS to Law Enforcement.]				3470 163	7 4070 NO	, 070 Hy a		13	30% 163) 30% NO)	, 070 Hy a		77
 a) Each system uses its own formula and salary data to determine the benefit. b) Each system applies its own formula but uses either the salary earned in the last system, or the highest salary (or salaries) in either system. 	n/a			15% Yes	/ 38% No	/ 46% n/a		7	30% Yes	/ 20% No ,	/ 50% n/a		22
in the last system, of the highest salary (of salaries) in either system.	n/a			38% Yes	/ 15% No	/ 46% n/a		7	18% Yes	/ 32% No	/ 50% n/a		22
c) The highest formula will apply.	n/a			0% Yes /	54% No /	46% n/a		7	5% Yes /	′ 45% No /	50% n/a		22
d) The formula of the plan where the member works last will apply.	/-			450/)/	/ 200/ N	1.460/ - 1-		_	400/ 1/	/ 220/ N -	1500/ - 1-		22
e) Other (describe).	n/a n/a				/ 38% No / 38% No	•				/ 32% No ,	•		22
n/a	li, a			15/0 163	/ 30% NO	7 40/011/4		,	11/0 163	/ 33% NO	7 30% H/a		
External Reciprocity													
Do you have agreements with external systems where you both agree to use the member's final salary from the system where the member worked immediately prior to retirement in the benefit calculation? [Otherwise, each system pays the "dual" member a pension benefit based on its own rules for determining the benefit. Neither credit nor													
money are transferred between systems.]	Yes			46% Yes	/ 54% No	/ 0% n/a		13	32% Yes	/ 68% No ,	/ 0% n/a		44

Survey Question	Y	our Respons	e		Pe	ers 2015				All Pa	rticipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
Do you have agreements with external Systems where the member may combine internal and external credit to form one joint account? [The accounts remain separate until the member applies for a benefit, at which time either: • The System with the most service credit for that person is responsible for the combined account, or • The System where the member worked last is responsible.]	No			23% Yes	/ 77% No	/ 0% n/a		13	18% Yes	s / 82% No	/ 0% n/a		44
Service Credit Rules													
 How many different definitions do you have for a "full year" of service credit? [For example, a system could have: One definition such as "more than 120 days = a year". Or the following three definitions: 9 months = a year for state colleges, 10 months = a year for teachers and 12 months = a year for public employees. Or the following three definitions: 182 days in school district A or B, 179 days in school district C and 180 days in all other school districts. Or the following two definitions for hourly employees: 48 weeks of 40 hours per week versus 48 weeks of 36 hours per week.] 	4			100	3	1	11	13	100	2	1	6	44
Does your system have more than one payroll year for determining service credit? [For example, the teachers' year could be July - June with their service credit determined based on the time worked July - June and the public employees' year could be January to December with their service credit determined based on time worked January to December.]	No			23% Yes	/ 77% No	/ 0% n/a		13	25% Yes	s / 75% No	/ 0% n/a		44
a) If yes, how many different payroll years exist in your system?	n/a			30	6	3	13	3	30	3	2	6	11
How many different vesting periods do you have that apply to active members? [Your answer should be 0 if you have immediate vesting. Most North American systems have only one.]	2			5	2	0	2	13	8	1	0	2	44
158 Do you permit:								\exists					
 a) Permanent part-time employees to be members? [An example of a permanent part-time employee is someone contracted to work 3 days a week.] b) Casual/ temporary/ intermittent/ seasonal employees to be members? [An example of a 'temporary" employee is an infrequent 	No				/ 8% No /	·				s / 5% No /	·		44
substitute teacher.]	No	6 CEM Bend	hmarkin		/ 23% No	/ 0% n/a		13	75% Yes	s / 25% No	/ 0% n/a		44

Survey Question	Yo	our Respons	е		Pe	ers 2015				All Par	ticipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
Are you sometimes asked by employers to determine the eligibility of members? [This can occur when a member works for multiple employers in your system or when there is unclear eligibility legislation. For example, a school bus driver may drive buses for multiple districts or counties at the same time. Based on time spent within each district the driver would be ineligible. However, based on the combined employment the driver may be eligible.] Service Credit Purchases	Yes			85% Yes	/ 15% No	/ 0% n/a		13	86% Yes	s / 14% No	/ 0% n/a		44
 Indicate each of the payment methods you permit for service credit purchases and upgrades: a) Rollover from tax qualified plans such as 401(a) or 401(k) or Conduit IRA or KEOGH in the US; or RRSP plans in Canada? b) Lump sum payments from members? c) Installment payments direct from members? d) Installment payments via payroll deduction through employers? 	Yes Yes No Yes			100% Yes	es / 0% No es / 0% No / 54% No / 38% No	/ 0% n/a / 8% n/a		13 12	79% Yes	s / 35% No	/ 5% n/a / 10% n/a / 12% n/a / 10% n/a		42 47 46 47
How many different service credit purchase categories do you have with different definitions and/or eligibility requirements? [For example, some systems have multiple different categories with different definitions such as 'refunded prior service', 'sick leave', 'military service', etc. Other systems have a single category such as 'any previous work, any time, anywhere'.]	34			37	14	6	16	13	37	11	2	12	42
 How many different service credit purchase calculation formula or methodologies do you have? [For example, one system has the following 4 different cost calculation formula: Previously refunded contributions X the actuarial earnings rate. Salary X Contribution Rate (no interest) for active duty military service. Salary X Contribution Rate X 5% per annum for out-of-state government, or private school teaching service Actuarial Cost for up to 5 years of any non-government, non-teaching work done outside of the pension system.] 	8			10	6	3	6	13	19	5	1	6	42
Are your service credit purchase rules (category definitions, eligibility requirements and calculation methodologies): a) Essentially identical for all your members?	No			31% Yes	/ 69% No	/ 0% n/a		13	41% Yes	s / 52% No	/ 7% n/a		41
b) Similar for all member groups, albeit with some differences?	Yes				/ 62% No	•				, s / 52% No			42
c) Very different for different member groups?	No				/ 69% No	•				, s / 80% No	•		41

Survey Question	Y	our Respons	se		P	Peers 2015				All Part	icipants 2	015	
	2015	2014	2013	Max	Med	l Min	Avg	#	Max	Med	Min	Avg	#
Refunds, Transfers-out and Terminating Payments													
Do you pay a one-time death payment when a member, retiree or the													
retiree's beneficiary dies (separate from the survivor pension)?	.,							4.0					
a) If yes, how many different one-time death payment rule sets do you	Yes			//% Yes	5 / 23% NO	o / 0% n/a		13	59% Yes /	41% No /	0% n/a		44
have? [i.e., \$5,000, \$2,000 etc.]	1			8	3	1	4	10	8	3	1	3	26
165 How many different refund formulas do you have?	3			7	3	1	3	13	Q ·	2	0	3	42
[For example, a few systems have different formulas for vested and non	-				3	-	3	13		_	O	3	72
vested members, or for different member groups.]													
Disability													
166 What happens to disabled members' benefits when they reach regular													_
retirement age:													
a) No change (disabled member continues to receive the same disability													
payments. There are no new potential pension obligations.)?	.,					1001		4.0					2=
h) Disabled members receive the greater of their current disability	Yes			69% Yes	s / 31% No	o / 0% n/a		13	61% Yes /	23% No /	′ 16% n/a		37
b) Disabled members receive the greater of their current disability benefit or service retirement based on their service credit earned to the													
date of disability? [i.e., time on disability does not count as service													
creditl	No			31% Yes	s / 69% No	o / 0% n/a		13	16% Yes /	68% No /	′ 16% n/a		37
c) Disabled members receive service retirement (time on disability	No			5.4% Voc	1 16% Na	o / 0% n/a		12	36% Yes /	19% No.	/ 16% n/a		37
counts as eligible service credit)? d) Other (describe)?	No				•	o / 0% n/a			18% Yes /	-	•		36
n/a	INO			40% 163	5 / 34% INC	0 / U% II/a		13	10% (65)	04% NO /	10/011/4		30
Will you pay a disabled member that returns to work at a salary lower than he previously earned:													
a) The difference between his old salary (or his old disability benefit)													
and his new lower salary?	No			31% Yes	69% No	o / 0% n/a		13	11% Yes /	68% No /	′ 20% n/a		35
b) An amount that is potentially greater than the difference between his	No			90/ Vos	/ 92% No	/ 00/ 5/5		12	5% Yes / 7	/F0/ No. /	200/ 5/5		35
old salary and his new lower salary?	INO			8% res /	/ 92% NO	/ U% II/a		13	5% res / /	5% NO / .	20% II/a		33
How do you determine whether a member qualifies for long-term disability/ disability pension:													
a) Follow the ruling of a government agency such as social security or													
worker's compensation?	No			8% Yes /	/ 92% No	/ 0% n/a		13	11% Yes /	73% No /	′ 16% n/a		37
b) Employer decides?	No			0% Yes ,	/ 100% No	o / 0% Some	/ 0% n/a	13	5% Yes / 8	2% No / (0% Some /	14% n/a	38
c) Process independent of social security, worker's compensation and													
employer decisions? [For example, many systems use independent													
internal processes or medical review boards or medical consultants.]	Yes			100% Ye	es / 0% No	o / 0% n/a		13	80% Yes /	5% No / :	16% n/a		37
d) Other (describe)?	No				-	o / 0% n/a			9% Yes / 7	•	•		37
<u>n/a</u>						•				Ť	•		
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Survey Question	Ye	our Respons	e		Pe	eers 2015				All P	articipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	с Me	d Min	Avg	#
Which of the following descriptions best describes the MINIMUM level													
of disability necessary to be eligible for a long-term disability/ disability													
pension: [If you have different plans with different definitions, choose													
the definition that applies to the largest number of cases.]													
a) Disabling injury or illness that prevents you from performing your													
current job duties (even though you might be able to perform other													
jobs) and expected to be permanent (or for some systems - persist	Yes			77% Vo	s / 23% No	/ 0% n/a		12	100/ V	os / 26% N	No / 16% n/a		37
longer than 6 or 12 months)? b) Disabling injury or illness that prevents the member from performing				777016	5 / 23/0 INU	/ U/0 11/ a		13	46/01	es / 30/61	10 / 10 /0 li/a		3,
current and 'other' jobs that he/she is qualified for and/or can become													
qualified to do in a reasonable period of time and expected to be													
permanent (or for some systems - persist longer than 6 or 12 months)?													
[Sometimes but not always the 'other job' is defined as not able to earn													
a certain level (i.e., 75%) of pre-disability earnings.]	n/a			8% Yes	/ 85% No /	8% n/a		12	14% Y	es / 68% N	No / 18% n/a		36
c) Totally and permanently incapacitated and member is not reasonably													
expected to recover from disabling medical condition or not expected													
to ever work again?	n/a			15% Ye	s / 77% No	/ 8% n/a		12	23% Y	es / 57% N	No / 20% n/a		35
d) Other (describe)?	n/a			23% Ye	s / 69% No	/ 8% n/a		12	9% Ye	s / 70% No	o / 20% n/a		35
<u>n/a</u>													
170 If you administer short-term disability:													
a) Are the short-term and long-term disability/ disability pension													
processes closely entwined? [i.e., difficult to distinguish between costs													
of long-term/disability pensions and short term disability, same staff do													
both, similar approval processes]													
	n/a			15% Ye	s / 0% No /	85% n/a		2	11% Y	es / 7% No	o / 82% n/a		8
b) Are the disability definitions, other than the expected duration of													
disability, the same for both long-term and short-term disability? [For													
example, the only difference between the definition of long-term/													
disability pensions and short-term disability at some systems is the													
disabling injury or illness is expected to last longer than 12 months for long-term.]	n/a			8% Yes	/ 8% No / 8	35% n/a		2	5% Ye	s / 14% No	o / 82% n/a		8
c) Are there materially different approval processes for short-term and													
long-term disability/ disability pensions?	n/a			8% Yes	/ 8% No / 8	35% n/a		2	7% Ye	s / 11% No	o / 82% n/a		8
How many different rule sets with different definitions or benefits do													
you have that apply to member groups or subsets of a member group													
for:													
a) Long-term disability/ disability pensions?	12			14	3	1	4	13	61	3	0	6	36
b) Short-term disability (if you administer it yourself)?	n/a			2	2	2	2	2	14	2	0	3	7

Survey Question	Y	our Respons	e		Pee	rs 2015				All Part	icipants 20	015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
[For example, some systems have different disability definitions or benefits for police and fire than they do for other public employees. Other systems have grandfathered disability rule sets that only apply to members hired prior to a certain date.]													
172 Do you reduce payments if the member qualifies or receives:													
a) Disability social security?	Yes			38% Ves /	62% No /	0% n/a		13	20% Yes	/ 61% No. /	18% n/a		36
b) Worker's compensation?	Yes			1	38% No /	-			39% Yes		-		36
c) Other public funds (i.e., federal military disability)?	No			1	85% No /	-			5% Yes /		-		36
d) Income protection plans/other disability insurance?	No			1	85% No /	-			7% Yes /		•		36
e) Employer sick leave and annual leave pay?	No			1	77% No /	•			11% Yes		•		36
f) Unemployment compensation?	No			1	69% No /	-			14% Yes		-		36
g) Income from other employment?	No				46% No /				32% Yes				36
h) Other (describe)?	No			1	85% No /	-			18% Yes	•	-		37
<u>n/a</u>				1370 . 657	00701107	070 H, G			1070 100	, 00,0110,	2070 1.7 G		0,
Pensionable Earnings													
173 Indicate which of the following forms of variable compensation are paid in your system. And, if paid, indicate whether all, some or none of that type of variable compensation is included in pensionable earnings.													
a) Bonuses?	Yes			92% Yes /	8% No / 0	% n/a		13	89% Yes	/ 11% No /	0% n/a		44
b) Allowances, such as remote location pay or 'high risk' duty allowance				3270 . 657	0,0110,0	, , , , ,			0370 103	, 11,0110,	0,0.1,0		
or a car allowance?	Yes			77% Yes /	23% No /	0% n/a		13	84% Yes	/ 16% No /	0% n/a		44
c) Overtime pay?	Yes			92% Yes /	8% No / 0	% n/a		13	84% Yes	/ 16% No /	0% n/a		44
d) Commissions or similar payments such as fees paid to sheriffs for process serving?	Yes			54% Yes /	46% No /	0% n/a		13	41% Yes	/ 59% No /	0% n/a		44
If yes, is all, some or none of it included in pensionable earnings?													
a) Bonuses?	Some			15% All /	0% None /	77% Some	/ 8% n/a	12	14% All /	14% None	/ 61% Som	e / 11% n/	/a 39
b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance?	Some										/ 52% Som		
c) Overtime pay?	Some			69% All /	0% None /	23% Some	/ 8% n/a	12	48% All /	14% None	/ 23% Som	e / 16% n/	a 37
d) Commissions or similar payments such as fees paid to sheriffs for process serving?	None			15% All /	8% None /	31% Some	/ 46% n/a	7	16% All /	7% None /	′ 18% Some	/ 59% n/a	18
When determining a member's pensionable earnings does a cap on salary increases apply?	Yes			77% Yes /	23% No /	0% n/a		13	41% Yes	/ 59% No /	0% n/a		44
<u>Customization Options</u>													
Can either existing employers, or a new employer joining your system, choose:	6.55	6 CFM Ben	,										

Survey Question	Υ	our Respons	ie	Peers 2015 Max Med Min Avg 31% Yes / 69% No / 0% n/a 8% Yes / 92% No / 0% n/a 23% Yes / 77% No / 0% n/a 54% Yes / 46% No / 0% n/a 0% Yes / 100% No / 0% n/a 15% Yes / 85% No / 0% n/a 0% Yes / 77% No / 8% n/a 0% Yes / 100% No / 0% n/a 8% Yes / 92% No / 0% n/a 0% Yes / 100% No / 0% n/a						All Par	ticipants 20	015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Whether they offer early retirement, or a window of early													
retirement?	No					•				s / 80% No			44
b) Whether or not part-time employees are eligible?	No			8% Yes /	92% No / 0	% n/a		13	9% Yes	/ 91% No /	0% n/a		44
c) Whether employee contributions are paid pre or post tax?	No			23% Yes	/ 77% No /	0% n/a		13	16% Ye	s / 84% No	/ 0% n/a		44
d) Whether they pay for employee contributions themselves, or not?													
	No			54% Yes	/ 46% No /	0% n/a		13	27% Ye	s / 73% No	/ 0% n/a		44
e) Position coverage based on predetermined rule sets? [For example,													
employers can choose from a list of pre-determined rules sets such as													
1.5% X FAS for General and 2.5% X FAS for Law Enforcement. Employers													
may have flexibility to determine eligibility for each group.]	No			0% Yes /	100% No /	0% n/a		13	9% Yes	/ 91% No /	0% n/a		44
f) Contribution levels and/ or match rates? [For example, at Texas MRS,				0,0.00,	200701107	0,01., u			370 103	, 52,6110,	0,011,0		
employers can choose employee deposit rates of 5%, 6% or 7% and													
employer match rates of 1 to 1, 1.5 to 1 or 2 to 1. We think this only													
applies to money match and DC plans because for DB plans the													
promised benefit determines the contribution.]													
,	No			15% Yes	/ 85% No /	0% n/a		13	7% Yes	/ 93% No /	0% n/a		44
g) To pay for one-time improvements in retiree or member benefits?													
[For example, one fund's employers can elect to pay to improve the	.,												
money purchase entitlement of their members.]	Yes			15% Yes	/ 77% No /	8% n/a		12	14% Ye	s / 84% No	/ 2% n/a		43
When new employers join your system, do they have the flexibility to													
customize any of the following items: If yes, indicate the number of													
standard choices for that item.													
a) Benefit program multipliers? [i.e., 2% per year of service, 2.5% per	No			00/ Vac /	1000/ No. /	00/ 5/5		12	09/ Vac	/ 000/ No /	20/ 2/2		43
year of service, etc.] b) Final salary definition? [i.e., Sick Leave in or out, Final 1 year, Highest	INO			0% 165 /	100% NO /	076 H/ d		13	0% 165	/ 98% No /	270 II/ d		43
5 consecutive years, etc.]	No			8% Yes /	92% No / 0	% n/a		13	2% Yes	/ 95% No /	2% n/a		43
c) Retirement eligibility rules? [i.e., age and/or years of service required				0,0.00,	327011070	, o , u			270 1 00	, 55,6110,	27011/4		
to retire]	No			0% Yes /	100% No /	0% n/a		13	2% Yes	/ 98% No /	0% n/a		44
d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI													
uncapped, etc]	No			8% Yes /	92% No / 0	% n/a		13	2% Yes	/ 98% No /	0% n/a		44
e) Vesting period?	No			0% Yes /	100% No /	0% n/a		13	0% Yes	/ 98% No /	2% n/a		43
f) Service credit purchase categories?	No			8% Yes /	92% No / 0	% n/a		13	7% Yes	/ 91% No /	2% n/a		43
g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000													
and \$10,000]	No			0% Yes /	100% No /	0% n/a		13	0% Yes	/ 100% No	/ 0% n/a		44
h) Disability coverage rules?	No			0% Yes /	100% No /	0% n/a		13	2% Yes	/ 98% No /	0% n/a		44
i) Choice as to whether and how contributions and benefits are													
coordinated with social security?	No			8% Yes /	92% No / 0	% n/a		13	2% Yes	/ 95% No /	2% n/a		43
j) Other (describe)?	Yes			8% Yes /	85% No / 8	% n/a		12	16% Ye	s / 82% No	/ 2% n/a		43
Probationary periods and sick leave program													
If yes: # of standard options													
ii yes. # oi stailuaru optiolis													

015 2014	2013	Max n/a	Med	Min	Avg	#	Max	Med	Min	Avg	#
		n/a									
			n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
		2	2	2	2	1	2	2	2	2	1
		n/a	n/a	n/a	n/a	0	3	3	3	3	1
											1
		'		•	•		•	•	•	•	0
		2	2	2	2	1	5	2	2	3	3
		n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
		n/a	n/a	n/a	n/a		•	2	2	2	1
		,	·		·						
		1	1	1	1	1	1	1	1	1	1
		2	2	2	2	1	3	1	1	2	7
		23% Yes	/ 69% No /	′ 8% n/a		12	23% Yes	s / 75% No ,	′ 2% n/a		43
		3,296	6	1	311	13	3,296	5	1	141	43
		228	3	1	21	13	228	3	1	11	43
				•					-		44
		62% Yes	/ 38% No /	′ 0% n/a		13	45% Yes	s / 55% No ,	′ 0% n/a		44
		92% Yes	/ 8% No / (0% n/a		13	98% Yes	s / 2% No /	0% n/a		44
				•					,		
		62% Yes	/ 38% No /	′ 0% n/a		13	32% Yes	s / 68% No ,	′ 0% n/a		44
		54% Yes	/ 46% No /	′ 0% n/a		13	43% Yes	s / 57% No ,	′ 0% n/a		44
			n/a 2 n/a 2 n/a 1 2 2 3,296 228 54% Yes 62% Yes 92% Yes 62% Yes	n/a n/a 2 2 n/a n/a 2 2 n/a n/a 1 1 2 2 23% Yes / 69% No / 3,296 6 228 3 54% Yes / 46% No / 62% Yes / 38% No / 92% Yes / 8% No / 62% Yes / 38% No /	n/a n/a n/a 2 2 2 n/a n/a n/a 2 2 2 n/a n/a n/a n/a n/a n/a n/a 1 1 1 2 2 2 23% Yes / 69% No / 8% n/a	n/a n/a n/a n/a 2 2 2 2 n/a n/a n/a n/a n/a 2 2 2 2 n/a n/a n/a n/a n/a n/a n/a n/a n/a 1 1 1 1 2 2 2 2 23% Yes / 69% No / 8% n/a 3,296 6 1 311 228 3 1 21 54% Yes / 46% No / 0% n/a 62% Yes / 38% No / 0% n/a 92% Yes / 8% No / 0% n/a 62% Yes / 38% No / 0% n/a 62% Yes / 38% No / 0% n/a	n/a n/a n/a n/a 0 2 2 2 2 1 n/a n/a n/a n/a n/a 0 2 2 2 2 2 1 n/a n/a n/a n/a n/a 0 n/a n/a n/a n/a n/a 0 n/a n/a n/a n/a n/a 0 1 1 1 1 1 1 2 2 2 2 1 23% Yes / 69% No / 8% n/a 12 3,296 6 1 311 13 228 3 1 21 13 54% Yes / 46% No / 0% n/a 13 62% Yes / 38% No / 0% n/a 13 92% Yes / 8% No / 0% n/a 13 62% Yes / 38% No / 0% n/a 13	n/a n/a n/a n/a n/a 0 3 2 2 2 2 1 2 n/a n/a n/a n/a n/a 0 n/a 5 n/a n/a n/a n/a n/a 0 n/a 5 n/a n/a n/a n/a n/a n/a 0 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	n/a n/a n/a n/a n/a 0 3 3 3 2 2 2 2 1 2 2 1 2 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 2 2 1 5 1 5	n/a n/a n/a n/a n/a 0 3 3 3 3 3 3 2 2 2 2 2 1 2 2 2 2 2 1 5 2 2 2 2 2 1 5 2 2 2 2	n/a n/a n/a n/a n/a 0 3 3 3 3 3 3 3 2 2 2 2 2 2 2 1 2 2 2 2 2

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Survey Question	Y	our Respon	se		Pee	ers 2015				All Par	ticipants	2015	
	2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
KRS collects Health Insurance Contributions of 1% for tier 2 and 3, but													
it's collected through the employee contribution. Based on service, the													
employee may not receive a future benefit.													
KRS also offers Installment Plan for purchasing service.													
Do you collect pension contributions from any members directly? [For													
example, Nurses in the Netherlands can continue to contribute to their													
pension even if they are inactive. Do not include optional contributions	N.a			00/ 1/ /	4000/ N = /	00/ -/-		12	220/ 1/-	/ 770/ NI-	1004 - 1-		4.4
such as to 401k savings plans]	No			U% Yes /	100% No /	U% n/a		13	23% Yes	5 / 77% No	/ 0% n/a		44
Do members deal with you directly when selecting or changing DB plan													
options such as options to switch from core DB to DC or DROP plans,													
option to participate in variable investment option overlays, option to													
change their contribution rate, option to repair pension gaps, pre-	No			469/ Vos	/ 200/ No. /	150/ 5/5		11	410/ Vos	/ 200/ No	/ 200/ 5/5		25
retirement election options, etc?	INO			40% Yes	/ 38% No /	15% II/a		11	41% 165	s / 39% No	/ 20% II/a		35
Are you required, by policy or by law, to actively seek out and initiate													
either a benefit or a refund for inactive vested members or inactive	V			4000/1/	100/11/1	00/ /		4.2	000/1/	/ 4 4 0 / 1 1	100/		4.4
unvested members?	Yes			100% Ye	s / 0% No /	0% n/a		13	89% Yes	s / 11% No	/ 0% n/a		44
Billing and Inspection													
184 Do you:													
a) Send a written advice to employers that inform them of their													
required contribution rates and then rely on each employer to pay the													
correct contributions?	Yes			77% Yes	/ 23% No /	0% n/a		13	66% Yes	/ 30% No	/ 5% n/a		42
b) Invoice employers in arrears based on actual member service and													
salary data?	Yes			62% Yes	/ 38% No /	0% n/a		13	57% Yes	s / 39% No	/ 5% n/a		42
c) Invoice employers in advance based on estimated member service													
and salary data, and then adjust based on actual experience?	No			22% Vos	/ 77% No /	0% n/a		12	16% Voc	s / 80% No	/ 5% n/a		42
405 15	INO			25% 165	/ / / // NU /	0% II/ a		13	10% 168	6 / 80 % NO	/ 5% II/a		42
185 If you answered 'yes' to questions 184a, b or c above:													
a) How many times per year do you send invoices or 'advices' to each	4.0			26	_		_	4.0	4 600	_			26
employer?	12			26	2	1	7	12	1,692	5	1	55	36
<u>Divorce</u>													
186 Choose the statement that best describes how divorce settlements for													
active members (or divorce decrees or QDROS, or QILDROS, or Division													
of Benefit Orders, etc.) impact your system. If you have different rules													
for different plans, choose the statement that applies to the largest													
number of cases. a) Minimal impact. Law prevents you from paying the pension to													
anybody except the member and the member's specified beneficiaries.	No			0% Yes /	100% No /	0% n/a		13	14% Yes	s / 84% No	/ 2% n/a		43
b) Minimal impact unless children are involved. With children you may													
be required to redirect payment.	No			0% Yes /	100% No /	0% n/a		13	0% Yes /	/ 98% No /	2% n/a		43

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Survey Question		Yo	our Respons	e		Pee	rs 2015				All Parti	icipants 2	015	
		2015	2014	2013	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) A portion of the pension is paid to the ex member begins receiving benefits. d) A portion of the pension is paid to the ex initiate the pension at a time different than	x-spouse. The ex-spouse can	Yes			85% Yes /	′ 15% No /	0% n/a		13	45% Yes /	′ 52% No /	2% n/a		43
eligibility conditions are met.	·	No			15% Yes /	85% No /	0% n/a		13	36% Yes /	′ 64% No /	0% n/a		44
e) Other (describe)		No			8% Yes /	92% No / 0	% n/a		13	11% Yes /	′ 86% No /	2% n/a		43
<u>n/a</u>														

Appendix B - Foreign currency conversion

All currency amounts have been converted to USD using Purchasing Power Parity figures per the OECD. The table below shows the foreign exchange rates for the past 4 years.

Purchasing Power Parity ¹				
Currency	2015	2014	2013	2012
United States Dollars - USD	1.000	1.000	1.000	1.000
Canada Dollars - CAD	0.797	0.797	0.810	0.807
Euro - EUR	1.287	1.287	1.294	1.294
Denmark Kroner - DKK	0.131	0.131	0.131	0.131
Sweden Kronor - SEK	0.114	0.114	0.116	0.115
United Kingdom Pounds - GBP	1.427	1.427	n/a	n/a
Australia Dollars - AUD	0.667	0.667	0.679	0.675

^{1.} Source OECD Website, February [YEAR].

1. Member Transactions

1a. PensionPayments

- 1. Paying (but not incepting) annuity pensions for disability, early and normal retirees and their survivors, including:
 - EFT processing.
 - Check processing and postage.
 - Resolving failed, misdirected and lost payments.
 - Paying, but not calculating, adjustments to pensions. For example, many systems pay retroactive adjustments to pensions initiated based on incomplete data.
 - Collecting overpayments.
 - The processing of return payments from annuitants.
 - Stopping pension payments upon the death of an annuitant.
- 2. Processing deductions from the gross pension payment. For example:
 - Processing and paying taxes and other governmental deductions, such as social security.
 - Processing legally required deductions such as liens on wages ordered by a judge.
 - Processing and effecting payment of optional deductions that the member can request, such as for health care or optional life insurance or union dues.
 - Processing and mailing of check stubs or EFT payment advices.
 - Processing and mailing of annual tax receipts to annuitants.
 - Keeping track of the rules and regulations for deductions.
- 3. Confirming payment eligibility. This includes:
 - Cross referencing pension payrolls with death records.
 - Obtaining proof that someone is alive.
 - Checking eligibility.

If a sister organization performs any of the above tasks, then the costs incurred by the sister organization should be included here and in your Total Costs.

Do NOT include:

- Maintaining banking, address and beneficiary data for retirees. These belong in 3c Data Not from Employers.
- The work of inflation adjustments. It belongs in 1b Pension Inceptions.

1b. Pension Inceptions

- 1. New annuitants: calculating, finalizing and arranging annuity pensions to new payees (i.e., early and normal service retirements, death in-service or on-pension resulting in annuity payments to spouse or dependents, divorce that results in new annuity pension streams). Exclude disability inceptions (except Dutch systems). Disability belongs in 1e Disability.
- 2. Changes to gross amount of pensions (excluding disability pensions) including:
- Adjusting pensions that were initiated based on incomplete or estimated data.
- Reducing the annuity payment when pensioner begins receiving social security (NL: AOW, Canada: CPP).
- Cost of living adjustments for pensioners.
- Last survivor options that reduce the amount paid to the pensioner when a spouse dies.
- High/Low construction: Reducing the gross annuity paid from the 'High" amount to the "Low" amount.
- Pop-up options that increase the amount paid to the pensioner if spouse dies first.
- Redesign of the payment option (such as changing from 0% survivor to 50% survivor) at request of the annuitant.
- 3. Time spent by the pension inception team on appeals about annuity pension inceptions. Exclude time and cost of legal staff or external legal counsel. Legal costs belong in 7d Legal and Rule Interpretation.

1c. Withdrawals, Refunds, Transfersout

Payments that terminate your relationship with a member including:

- Refunds, Transfers- Withdrawals and Refunds of contributions.
 - Lump sum and commuted value payments.
 - Pre-retirement death that results in a final payment (refund, commuted value, death payment).
 - One time death payments that are supplemental to the annuity payments. Do not include the cost of paying or stopping the final pension payment which belong in 1a Pension Payments.
 - Hardship withdrawals (including partials).
 - Excess contribution refunds (For example, 50% Rule Refunds in Canada).
 - Individual rollovers of DB monies to internal DC accounts which effectively terminate the DB pension entitlement.
 - Individual transfers-out of monies to authorized external systems.
 - Collective transfers-out when an employer exits your system.

The activity also includes:

- Providing written estimates of refunds and transfers-out (do not include estimates for Lump Sums and Commuted Value Payments which belong in 2e Written Pension Estimates).
- · Calculating, arranging and making estimated and final payments.
- Related tax deductions, filings and reporting sent to members and tax authorities.
- Reminders to speed up processing by external parties.
- Collecting overpayments of lump sums or other terminating payments.

Transfers-in

- 1d. Purchases and Service credit purchases for refunded past service, military service, etc.
 - Purchases that provide members with additional pensionable salary.
 - Individual transfers-in/ rollover of monies from external retirement systems.
 - Collective transfers-in such as when a new employer is merged into your system.

The activity also includes:

- Providing formal written estimates of purchases and transfers-in/rollovers.
- Posting purchases and applying payments.
- Receiving purchase payments.
- Related tax reporting sent to members and tax authorities.
- Purchases applicant dealing directly with the Purchase division, subsequent to an initial request for a purchase.

1e. Disability

Include only if you are responsible for the administration of non-optional long term disability, and/ or short term disability. Includes:

- Written disability estimates.
- Disability approval process.
- · Applications and inceptions.
- Disability appeals and complaints, provided that they are not handled by your legal staff or external legal counsel. Legal costs belong in 7d Legal Rule Interpretation.
- Monitoring and reviewing disabled pensioners and/ or temporarily disabled members for continuing entitlement, including checks on income and medical reviews.
- Checks on eligibility of disability payments.
- Rehabilitation of disability recipients (very few systems perform this activity).
- Medical assessment reviews of new hires for eligibility for death and disability benefits.

Do not include if disability is an optional benefit for members. Instead include in 1g Optional and Third Party Administered Benefits.

Do not include insurance costs. If an insurance company administers the disability program on your behalf, and you cannot clearly separate the administration cost from the insurance cost, then treat disability as a third party administered benefit.

Do not include paying disability pensions. This belongs in 1a Pension Payments.

1f. Healthcare Administration

This activity only applies to the subset of U.S. systems that administer healthcare. Include only the costs of the healthcare department and any healthcare activities that are not closely integrated with pension administration activities (i.e., If the healthcare call center is separate from the pension administration call center, include its costs and volumes here. But if healthcare calls are integrated with the pension call center, include the costs and volumes in the Call Center activity.). The healthcare department will usually, at a minimum, be responsible for design, vendor management and enrolment.

Do NOT include any activities that are integrated with pension administration and not done by the healthcare department. For example:

- Communication activities such as call center calls and presentations are often integrated with pension administration. In these cases the cost and volumes belong in the pension administration activity.
- Similarly, the legal and actuarial departments often handle both healthcare and pension issues. If this is the case, these costs belong in activities 7c Actuarial and 7d Legal and Rules Interpretation.

1g. Optional and Third Party Administered Benefits

Examples of optional and third party administered benefits are:

- Benefits that are supplemental to the members' primary pension benefit at retirement. Examples include tax deferred savings plans (i.e., 403B, 457, 401k and 401a), insurance (dental, vision, long-term care) and loans to members.
- Third party administered benefits. For example, the defined contribution portion of hybrid DB/DC plans are often outsourced.

Include the costs of:

- Specialists responsible for optional and third party benefits, including design, vendor management and enrolment.
- Fees paid to third parties to administer outsourced benefits.

Do NOT include:

- Communication activities such as call center calls, presentations and brochures. These belong in the communication activities. For example, the cost and volumes of call center calls about supplemental benefits belong in 2a Call Center.
- · Actuarial and legal costs. These belong in activities 7c Actuarial and 7d Legal and Rules Interpretation.

2. Member Communication

2a. Call Center

The 'first-line' communication work for active, inactive and annuitant member inquiries.

First-line communication includes responding to general questions, initial requests for activity specific work to be performed (such as a request for a written estimate or a refund of contributions, death reporting, change of address or direct deposit or beneficiary), questions about account status or annual statements, advice given over the phone, etc. This activity includes member inquiries by:

- Telephone: waiting for calls, talking to members on the phone, redirecting calls, training Contact Center staff, auditing calls, call satisfaction surveying and long distance charges.
- Automated information or self-serve lines (i.e., telephone lines where the member never needs to speak to a service representative and can navigate menu options where they request forms and publications, etc.). But do NOT include the cost of responding to requests for forms and publications. This belongs in Activity 2f Mass Communication.
- $\bullet \ \ \text{Email: reading, responding to simple requests, redirecting activity specific requests.}$
- Written correspondence: reading, responding to simple requests, redirecting activity specific requests.

Includes contact center hardware and software.

Do NOT include:

- Work performed after the call for activities where costs are collected separately. For example, if a member requests a written pension or benefit estimate, then the cost of preparing it belongs in 2e Written Pension Estimates and not here, even if the work is done in the Contact Center.
- Subsequent follow-up activity specific communication. For example, a disability applicant dealing directly with the disability division belongs in 1e Disability.

2b. Mail Room,	Managing incoming and outgoing mail.
Imaging	 Incoming written correspondence: sorting, redirecting activity specific requests. Scanning and imaging of incoming documents and forms to start a workflow process.
	Do NOT include: • Postage. This belongs in the activities where they were incurred. For example, the mailing of pension checks, check stubs, EFT advices or annual tax receipts belong in 1a Pension Payments.
2c. 1-on-1 Counseling	 Walk-in traffic that meets with counselors. Pre-scheduled 1-on-1 retirement and other counseling. Include pre-scheduled counseling sessions that are conducted via teleconference or over the phone that cover materials sent to the member in advance of the session. If written pension estimates are prepared during a counseling session the cost belongs in counseling and not in written estimates.
2d. Presentations and Group Counseling	All presentations to members and retirees. Group retirement counseling. Webinars.
2e. Written Pension Estimates	Preparing and sending, by mail or email, customized written estimates in response to requests from individual members regarding: • Annuity pensions including early and service retirement. • Giving customized written insight into pension consequences of divorce, death, layoffs, taxes, gaps in pension coverage, etc. • Lump sum or commuted value payouts.
	 Do NOT include: Estimates for transfers, purchases or refunds of contributions. These belong in 1c Withdrawals, Refunds, Transfers-out and 1d Purchases and Transfers-in. Estimates that the member did not request, such as estimates that are automatically sent out when the member is eligible to retire or estimates on member statements. These belong in 2f Mass Communication. Non-written estimates such as verbal estimates provided over the phone or obtained by the member from the website. Time spent during a counseling session preparing written estimates. This belongs in 2c 1-on-1 Counseling.
2f. Mass Communication	Any benefit related communication that is sent to all members or groups of members. The cost should include design, printing and mailing costs. Examples include: • Member statements. • Brochures and publications. • Newsletters and information letters.
	 Videos, CD-ROMS. Website pension content targeted at members and annuitants. Includes design, development and maintenance of the member content, as well as its pro rata share of the website infrastructure. Annual reports and popular annual report summaries, but do not include the accounting and auditing costs incurred to prepare the annual report. Accounting costs belong in 4a Financial Administration and Control and auditing costs belong in 7e Audit. Welcome kits. Letters informing members when they reach or approach certain milestones such as becoming vested, eligible for disability, eligibility for retirement, etc.
	Do NOT include: • Pre-scheduled retirement counseling done in group sessions or 1-on-1 or member presentations. These belong in 2c 1-on-1 Counseling and 2d Presentations and Group Counseling. • 1-on-1 correspondence. These costs belong in the activity to which the correspondence pertains. For example, correspondence re: pension estimates belongs in 2e Written Pension Estimates. • Payment advices, check stubs, letters informing of changes in gross amount, and annual tax receipts prepared for retirees. These belong in 1a Pension Payments. • Employer targeted communication such as the employer portions of the website and employer newsletters. These belong in 3c Service to Employers.

3. Collections and Data Maintenance

3a. Data and Money from Employers

- Collection and cashiering of member and employer contributions from employers.
- Collection of member data (service credit, salary, personal information, employer, etc) from employers.
- Reconciliation of required versus remitted money.
- Analysis, correction and confirmation with employer of member data.
- Setting up the data and money collection process for new employers.
- Improving the data collection process for existing employers (i.e., converting paper systems to electronic, etc).
- Registering member choices and instructions that are received through the employer. For example:
- Some hybrid DB/ DC systems require that a member's DC instructions come through the employer.
- Members at some Dutch systems can choose to contribute more to get early retirement. This choice is registered via the employer.

(The activities below used to be in a separate activity 'Billing and Inspection' and are now merged into 3a Data and Money from Employers)

- Advising employers of the required contribution rate (but excluding the actuarial cost of determining the rates which belongs in 7c Actuarial).
- Billing employers for regular contributions, special contributions to cover funding shortfalls, additional payments to retirees funded by the employer, etc.
- Collecting bad debts. But do not include legal costs. These belong in 7d Legal and Rules Interpretation.
- Employer reviews or audits. For example, several systems perform on-site reviews of employers that have problems providing data and or contributions on a timely basis. They want to ensure that the employers are correctly fulfilling their obligations to their members.
- Inspection and enforcement of obligation to participate in the System (i.e., participation in some Dutch industry funds is mandatory if the employer has certain characteristics).

3b. Service to Employers

- Training employers.
- Helping new employers.
- Maintaining employer relationships.
- Presentations, counseling, workshops for employers.
- Publications and newsletters for employers (as opposed to materials sent to members through employers).
- Employer helpdesk/ Employer Call Center.
- Employer website including the design, development and maintenance. as well as the pro rata share of the website infrastructure.
- Advice, account management, HRM support re: pensions.

Do NOT include marketing to employers. Marketing costs belong in 4c Government and Public Relations.

Employers

- 3c. Data Not From Gathering and maintaining member data that is not provided by employers including:
 - Retiree and Inactive data maintenance such as change of address, change of beneficiary, change in marital status, death, registering changes in payments, etc.
 - Tracking 'lost' inactive members.
 - If applicable, registering cost of living adjustments to the salary base of inactive members (a few systems do this).
 - Registering the impact of divorce on the future rights of members. But do not include the work of estimating the impact of divorce which belongs in either 2e Written Pension Estimates, 2c 1-on-1 Counseling and or 2a Call Center. Also do not include the cost of changing or initiating pensions as a result of divorce. This belongs in 1b Pension Inceptions.
 - Billing and collecting contributions directly from inactive members. For example, nurses in the Netherlands can continue to contribute to their pension even if they are inactive.
 - Registering member choices and instructions that are received directly from the member. For example:
 Defined Contribution instructions obtained directly from active, inactive or retired members, such as changes in asset allocation.

Do NOT include the cost of incepting new pensions or determining changes to the gross amount of the pension paid to retirees. This belongs in 1b Pension Inceptions.

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the industry.		, ,
• Memberships in Councils of industry runds, Company runds of international Organizations.		Memberships in Councils of Industry Funds, Company Funds or International Organizations.

5. Major Projects

Major Projects are long lived assets that could be (or are) capitalized and expensed over their useful life if you follow GAAP (Generally Accepted Accounting Principles). Examples of Major Projects include:

- Acquisitions of long lived assets such as computer hardware or a new building.
- Major software development projects that will have an extended life.

If you do not capitalize Major Projects, provide the actual costs expensed during the year. If you do capitalize Major Projects, include the depreciation or amortization costs of all past and current Major projects. But do not include the current year's cash investment in Major Projects that are being capitalized.

Do NOT include:

• Major Projects that pertain to non-pension or optional benefits such as a new IT system for health care. These costs should be excluded from Total Pension Administration Costs per question 7.1 Non-Pension and Optional Benefits are defined in the comment field in question 7.1.

5a. Amortization	Current year amortization of the non-IT portion of capitalized major projects.		
of non-IT major	, , , , , , , , , , , , , , , , , , , ,		
projects	Major Projects are long lived assets that are capitalized (under GAAP or GASB 51) and expensed over their		
, .,	useful life, which is greater than one reporting period. Examples of non-IT major projects could include if the		
	costs were capitalized: i) a large, one-time historic data cleaning project, or, ii) imaging all historic records.		
	Do NOT include:		
	Amortization of the IT portion major projects. This belong in activity 5c Amortization of IT major projects.		
	Amortization of leaseholds or office furniture. This belongs in activity 7a Building and Utilities.		
5b. Non-IT major	If you do not capitalize major projects, then include the current year cost of the non-IT portion of major		
projects (if you	projects that could be capitalized under GASB 51 or GAAP.		
don't capitalize)			
	Do NOT include the IT portion of major projects. This belong in activity 5d IT Major Projects (if you don't		
	capitalize).		
5c. Amortization	Current year amortization of the IT portion of capitalized major projects.		
of IT major	Major Projects are long lived assets that are capitalized (under GAAP or GASB 51) and expensed over their		
projects	useful life, which is greater than one reporting period. An example of an IT major project could be a major		
	software development project in the application stage of development, i.e., design, software configuration,		
	software interfacing, coding, installing hardware and testing.		
	software interrueing, coaing, instaining naraware and testing.		
	Do NOT include:		
	• Amortization of the non-IT portion major projects. This belongs in activity 5a Amortization of non-IT major		
	projects.		
	Amortization/depreciation of IT infrastructure such as mainframes and servers. This belongs in 6a IT		
	Strategy, Database Management and Applications (excl. major projects).		
	Amortization/depreciation of desktop hardware and software, or telecommunications equipment. This		
	belongs in activity 6b. IT Desktop, Network, and Telecommunication.		
- 1 - ·	Amortization of projects that relate to investment management. If you do not not it like the project in t		
5d. IT major	If you do not capitalize major projects, then include the current year cost of the IT portion of major projects		
projects (if you	that could be capitalized under GASB 51 or GAAP.		
don't capitalize)	Do NOT include the non-IT portion of major projects. This belong in activity 5b Non-IT major projects (if you		
	don't capitalize).		
6. Information Tec			
6a. IT Strategy,	• IT management and strategy.		
Database	• IT architecture.		
Management and	• Data center i.e., current year cost (whether cash or amortization) of mainframe, servers, data center		
Applications (excl.	hosting.		
major projects)	• Training.		
, , , ,	Head of the IT department's office.		
	Database management including: building databases, testing databases for data integrity, maintaining		
	databases, ensuring operation of databases.		
	Application maintenance, enhancement and development that is not capitalized. Project management that is not included in Major Projects.		
	Project management that is not included in Major Projects.		
	Do NOT include the portion of the above that relates to investment management.		
6b. IT Desktop,	User services including application licenses, personal computer hardware and software, help desk. Network (i.e., LAN/MAN, activity)		
Network, and Tele-	Network (i.e., LAN/ WAN, network security). Telescommunications including call center equipment and mobile devices. If any of the above certs are		
communications	• Telecommunications including call center equipment and mobile devices. If any of the above costs are		
	capitalized, include current year amortization.		
	Do NOT include the portion of the above that relates to investment management.		

7. Support Services	\$
7a. Building and	Building occupancy costs including rent, lease, amortization of leaseholds and building and office furniture
Utilities	depreciation.
	Building depreciation if you own the building.
	Building insurance.
	Building maintenance services such as custodial, maintenance, security services etc.
	• Utilities.
	Do NOT include the portion of the above that relates to investment management.
7b. Human	Human resources staff and human resources consulting, including recruitment, training, career
Resources	development, induction, disciplinary action etc.
	• Include time spent in the development of the HR framework, including policies and procedures.
	Do NOT include:
	• Time spent by non HR staff interviewing or training. For example the training of a call center agent belongs
	in activity 2a Call Center.
	• The portion of the above that relates to investment management.
	• Recruitment fees - these should be added to the staff costs of the people to which they relate in the
	different business units.
	Do NOT include separation or severance costs here. These belong in the 'Third Party and Other Costs' of the
	activities that the terminated FTE performed.
7c. Actuarial	All internal actuarial department costs, external actuarial fees and sister-entity cross charges for actuarial
7c. Actuariai	work including:
	Actuarial work for financial and government reporting.
	Actuarial work to determine funding policy, contribution rates or billing rates.
	Quantifying the impact of changes in the plan.
	Advice on plan design / redesign, funding and contributions, the employer's covenant, mergers and
	acquisitions etc.
	Inception, disability and healthcare calculations that require actuarial input.
	Formulating an Actuarial Policy document.
7d. Legal and Rule	• All external legal fees.
Interpretation	• Internal legal department (including legal fees charged by sister organizations or the corporate parent).
interpretation	• Appeals concerning pension inceptions (as well as any other appeals) if they are handled by the legal
	department or by external legal counsel.
	Plan contract amendments. Adding new participating employers.
	• Interpretation of existing rule sets and laws.
	• Developing rules that simplify the interpretation of the plan contract and related legislation on behalf of
	staff, employers or members.
	• Support to the communications department in writing brochures and other communication material.
	Do NOT include the portion of the above that relates to investment management.
7e. Internal and	• Fees paid to the external auditor, particularly for the audit opinion on the accounts.
External Audit	• The external auditor may be the public audit office or an independent audit firm - in either case these fees
External Addit	or charges belong in the '3rd Party Fees' column.
	• The costs of internal audit and / or quality assurance departments.
7f. Benefits Paid	Healthcare and other benefit costs for retired or inactive staff that are paid by the employer (and not via
for Retired Staff	member contributions) on a 'pay-as-you-go' basis.
	Do NOT include accrued costs for existing staff such as contributions to their pension. These belong in each activity's' cost as part of salary and benefits.
7g. Other Support	All other pension administration costs that have not been included elsewhere.
Services	The series person duministration costs that have not seen included elsewhere.
JCI VICES	I .

Appendix D - Defaults

Survey	y Question	Method	Default
Q17	What percentage of annuity inceptions for:		
	b) Survivors are paid without an interruption of cash flow between the pensioner's final pension check and the survivor's first pension check?	Your response was unknown. We used a default value of 0.	0.0%
Q36	In the table below, indicate whether or not each described outcome can occur when a member calls into your system seeking a knowledgeable person during business hours, and if yes, indicate the volume of occurrences.		
	a) # Busy signal, never enters the system?	Your response was unknown. As a default we used number of incoming member calls multiplied by estimated number of calls to the member communications center that results in a busy signal which, if unknown, was replaced by the all-participant average.	2,384
	b) # Caller gets pre-recorded 'call another time' message during business hours?	Your response was unknown. As a default we used number of incoming member calls multiplied by estimated percentage of calls to the member communications center that result in the caller recieving a pre-recorded message to 'call another time' which, if unknown, was replaced by the all-participant average.	2,384
	d) # Abandoned calls (i.e., caller hangs-up while in a menu)?	Your response was unknown. As a default we used number of incoming member calls multiplied by estimated percentage of calls to the member communications center that the caller abandons which, if unknown, was replaced by the all-participant average.	9,950

Appendix D - Defaults

Survey	y Question	Method	Default
Q73	How many written pension estimates did you mail out pursuant to individual member requests? [Exclude estimates prepared during counseling sessions and not mailed in advance.]	Your response was unknown. We have used as a default the value that ensures that the ratio of this value to the active members is equal to the all-participant average ratio.	14,303
Q104	What % of your active and inactive member on-line records are complete and accurate?	Your response was unknown. We used a default equal to the 25th Percentile of other systems' responses.	94.0%